

Devoted to Agriculture, Horticulture and Science.

**Established
in 1843.**

{ New Series
{ Vol. 2, No. 12

A WEEKLY MICHIGAN FARMER.

WILLIAM S. BOND, GEORGE SNYDER,
PUBLISHERS.

Rates of Advertising.

CLUB RATES—5 copies \$4; 8, \$6.25; 10, \$7.50; 15, \$11.00; 20, \$14; 25, \$17; 30, \$20. Premiums of Strawberries, Grape Vines, and Books, for 5, 8, or 10, \$1 subscribers.

PAGE 531—A Weekly Michigan Farmer; State Agricultural Society.

- Many of our friends, have suggested that we change the MICHIGAN FARMER to a weekly paper, as they depend more upon it for reliable market reports than any paper in the State, and as the markets are so variable at present, they want them oftener. We shall, therefore, if enough of our subscribers will forward their names to make it an object at \$2.00 per year by the first week in July, commence the publication of a weekly paper during the month. In the issue of such we shall pay strict attention to Agriculture, Wool interests, Stock Breeding, Horticulture Floriculture, News, Literary and Educational matters, Science and Mechanism, and publish the most thorough and easily understood markets to be found in any paper in Michigan. If the farmers of this State want a paper that will keep fully informed of what is the best market for their home productions, let them evince it by interesting themselves in favor of a HOME AGRICULTURAL WEEKLY NEWSPAPER, as they cannot obtain such facts from any eastern journal. A club of five can obtain it for \$1.80 each; 10, \$1.70 each; 15, \$1.60 each; 20, \$1.50 each if published. FARMERS OF MICHIGAN! will you support a GODD WEEKLY HOME JOURNAL? If so, send in your names, in order that we may prepare to publish such a one.

We have received the List of Premiums, &c., for the 10th Annual Fair, together with the proceedings and lectures at the Winter meeting, which forms a book that every farmer should possess—the issue in the present form is a step in advance of anything before accomplished by the Society, containing as it does 76 large pages of matter of the fullest interest. We are pleased to see that the premiums are more general and better upon all kinds of stock, productions, and manufactures, being higher than ever before offered, some ranging as high as *forty dollars*, which will pay the expenses of successful competitors, aside from the honor of carrying off the first prize.—W. S. B.

THE WHEAT CROP.

We do not wish to become alarmists in regard to the failure of the wheat fields of nearly all of that portion of the country lying east of 83° west from Greenwich, (or between Lake Michigan and the Atlantic) to produce more than *two-thirds the usual crop*! It is well to know the worst and prepare for it. In the *Michigan Farmer* of April, we said in our remarks upon this product, "that No. 1 white wheat will bring \$1.75 a bushel in Michigan,"—some of our friends at that time expressed some doubts as to whether it would reach our figures—but how true were our predictions, to-day, (June 14th) although only about 60 days have elapsed, No. 1 white wheat is readily contracted for and taken at \$1.75 per bushel, with a good prospect of reaching even to *two dollars*!

We were in hopes that the wheat crop would be at least fair, but such will not be case. We learn as the harvest approaches, that much of the wheat which gave a promising appearance two months since in "heading" has produced little else but husks or light weight grain—this is owing, no doubt to the severe weather in Jan'y and March killing the vital principle of the seed, which, although it was strong enough to send up its stalk it was too much hurt to mature plump grain.—Many observing farmers have noticed this, and immediately consolidate itself for mutual protection and uniform action. Michigan stands the third in the list of wool growing States, and she should now look to her credit abroad—both as to the quality and condition of her wool when ready for market.

One thing which is giving Michigan wool a most undesirable reputation is the material used in tying up the fleeces. Farmers must not judge that heavy black twine which they buy for 20 or 30c. per lb. is bound to be taken when on wool for 75c., as buyers are now making large deductions upon fleeces so prepared, and one man lately told us that while in New York and Boston that buyers would throw out Michigan wool tied with "bed-cord stuff" and pay much less, even if of a finer quality than for Ohio, which was tied with light white twine. We trust that the Woolgrowers of this State will look to their laurels, for if it gets a bad name in market, it will neither command a high price or ready sale. Let it be well washed and well packed, and it will sell quickly and at high rates:

Fleeces should be tied up loosely with white, light twine.

The heavy coarse cord that costs 30 cents per pound, must not be used, though there is a strong inducement to do so, when it is sold with the fleece at 75 cents per pound. The fleeces must be

rolled up carefully, leaving it as *bulky* as possible. are now convinced that there will be a short crop. If thirty bushels in every hundred fail in the loyal States, how can the deficiency be made up, certainly not from those in rebellion, for they are already impoverished and can hardly feed themselves. In New York, Ohio, Pennsylvania, the New England States and Canada there is a general complaint as regards a light crop, and in this State the condition is worse than was supposed after it had fully commenced its spring growth.—The last two weeks have been very unfavorable for "ripening off" wheat—corn has also received a most damaging check in consequence of the dry, cool weather. Many have become alarmed at the prospects, and think they see war, financial ruin, desolation, famine, and the end of the world near at hand. In Detroit, it is said that a minister of one of our most respectable and wealthy congregation, so adviseth his hearers. We think ourselves that some great crisis approaches us almost imperceptibly of portentous moment.

R. F. Johnstone, Esq., Sec'y of the State Agricultural Society has made a trip to Washington, during which he makes the following observations in regard to wheat along the route:

"From Cleveland to Pittsburg, the railroad most of the way lies through a magnificent range of land, capable of the highest cultivation. Thro' out its whole extent, I did not see one first-rate field of wheat. All were more or less "winter-killed, and some were completely used up so that the cattle had been turned in. I could have hardly believed without seeing it, what a whole crop over so great a range of country so far south of Michigan, could have lost its winter wheat so completely. I think this loss is general, for the road seemingly runs thro' a tract of country that is very even in its character, and as good lands lie along the railroad as at a distance from it.—I had plenty of daylight to examine the crops through a tract of country between Pittsburg and the Chestnut range of the Alleghany mountains. Here, also, the wheat had suffered in the same way as in Ohio and Michigan; and from what I could see, I am obliged to estimate the crop as not likely to yield over one-third to one-fourth of an average.

The season seems as late in this direction as it has been with us. South of Cleveland to Pittsburg, the plowing on the stiff soils has been done, but in all cases the corn is not planted. Only in a few instances was the plant up, and it was not until I got into Maryland that fields of corn were seen, where the rows could be traced. There it is high enough to have been cultivated once, and in some very forward fields it was from eight to

ten inches in height. Oats are very promising, and up among the hills of Pennsylvania this crop is extensive, and is remarkably luxuriant. From what I have seen, I think the farmers of Michigan are almost as far ahead as their more southern neighbors in Ohio, and as yet have no cause for despondency, though their work may be hurried. In Ohio, I saw a number of flocks of sheep, nearly all of which had been clipped. In this respect, Ohio seems to be somewhat ahead of us."

The *Ohio Farmer* thus describes the Wheat crop of that State:

"From all parts of the State—from the valleys of the south, from the higher lands of the central range of counties—from the northwest and all the Reserve—the same reports come to us of barren fields, and fields already plowed under for other crops; and resist the conclusion as we may, it must be admitted that if the yield of wheat in Ohio reaches two-thirds of an average crop, we shall have realized all that the most hopeful can look for. We hear of but few good fields—of many perhaps that will give one-half the usual yield—of many more that will barely justify the expenditure of the time for harvesting—of very many all over the State, for which the promised 'harvest time' will never come. We never suffer ourselves to 'croak'—we know usual it is to grumble and predict a failure of crops—but the stubborn facts must be admitted, that this year, we of Ohio must face the reality of a short crop."

The *Jackson Patriot* says of Wheat in that vicinity:

"The prospect of the wheat crop in this county the present year is not flattering, from personal observation, having passed over some portions of the county, and the information received from farmers of the several townships, in which we have the assurance that it cannot exceed half a crop, providing the weather should hold favorable up to the time of its being harvested. The wheat as a general thing, last fall was not put in so well on account of scarcity of labor, nor in as good season as in former years; therefore, it did not get that strength of root which was necessary to withstand the severe cold weather of January, which came down upon us without a sufficient covering of snow to protect it, altho' there are many pieces of wheat where the fields are protected upon the west and north by woodlands, which now bids fair for a fine crop. However, these are few and far between; and we shall come far short of our usual average of wheat this season. The frequent showers and growing weather of April and May caused large growth of clover and grass of all kinds. With this blessing our stock is looking finely; and as the farmers of the county do not entirely depend upon their wheat

crop as their only resource of production—as they are largely engaged in the growing of sheep, as it is generally considered that our county is second to none in the State, either in amount or quality of wool we produce."

The *Clinton County Republican* says of the Wheat crop:

"From various parts of this county we learn that winter wheat is coming on more vigorously than was anticipated—that present appearances indicate only about two-thirds an average crop will be harvested. Wheat on high ground is generally winter-killed. Accounts from various parts of the State are more encouraging than those received earlier in the season. It is stated that all along the line of the Michigan Central railroad, the wheat crop bids fair to be very good, and in the western part of the State, more than the average. Along the Detroit and Milwaukee railroad, however, many fields between this point and Detroit are totally destroyed. From Ionia, and other counties west of it, we have favorable accounts of the crop. The *Gratiot News* says wheat looks finely in that county."

The *Monroe Commercial* says:

Wheat has been coming forward very rapidly of late, and many fields which have been thought to be almost worthless, may yet disappoint their owners by yielding half a crop, while some of the best fields, in sheltered localities, will yield perhaps a full crop, though in this county they will be few and between."

The *Oceana Times* says:

The weather has been exceedingly pleasant for the past week, and vegetation is starting forth in earnest. We learn from several of our farmers, that the wheat crop looks very promising throughout the county.

The *Allegan Journal* says:

While from other parts of our State the cry is coming up "that the wheat crop is a failure," we are glad to be able to send greeting to our brethren, and say "there is corn in Egypt," and if no unforeseen event happen to this crop, Allegan co. can supply her own demand, and (for greenbacks) help to supply the destitute. Farmers of our county have felt the necessity of putting forth an extra effort in this department, and we feel safe in saying that the breadth of cultivated lands is as great, if not greater, than at any former time.

Dr. Beebe writing to us from Hillsdale, says:

Most of the late sowed wheat in this vicinity is a total failure—while the early sowed will probably not go over one-half to two-thirds the usual crop. We stand in great need of rain.

Another correspondent from Macomb county, says: "I drilled in fifty acres last fall, and finding

that it would not produce enough to pay for seed I plowed it up for other crops. I hear that this has occurred in many other portions of the county. I do not think our winter wheat will average more than half a crop."

We have also very flattering accounts of a good yield from some portions of the State, but generally the complaint is of a short crop or total failure.

Not only has the winter wheat failed, but fears are at present entertained for the spring wheat and corn crop. A friend of ours who has just arrived from Wisconsin and Illinois informs us that unless there is rain soon that both of these crops will be completely burned up on the surface—corn has already in many instances turned yellow. Michigan is suffering much from the continued dry weather, the ground being baked and cracked—little or no rain having fallen for the thirty days ending at this date (June 16th.)

Prices throughout the State range as follows:

	White Wheat as to quality.	Red Wheat as to quality.
Pontiac,	\$1.45a1.70	\$1.50a1.55
Niles,	1.50a1.60	1.40a1.50
Ann Arbor,	1.55a1.65	1.45a1.50
Hastings,	1.45a1.50	1.35a1.40
Jonesville,	1.35a1.40	1.23a1.30
Charlotte,	1.50a1.55	1.20a1.40
Dowagiac,	1.55a1.60	1.40a1.45
Monroe,	1.45a1.50	1.35a1.40
St. Johns,	1.50a1.60	1.20a1.45
St. Joseph,	1.45a1.50	1.35a1.40
Kalamazoo,	1.50a1.60	1.25a1.35
Battle Creek,	1.55a1.65	1.30a1.40
Marshall,	1.55a1.63	1.35a1.65
Jackson,	1.45a1.56	1.20a1.40
Dexter,	1.55a1.63	1.20a1.40
Ypsilanti,	1.60a1.68	1.40a1.50

It will be seen by the above that the prices of wheat have gone up rapidly within the last ninety days, with a fair prospect of a still greater increase.—W. S. B.

THE MICHIGAN FARMER.—This able agricultural monthly is just issued for May, and presents as usual a variety of valuable matter. The *Farmer* numbers among its contributors the best writers in the State, men who are practically acquainted with the business of farming in this State. We recommend the *Farmer* to those of our readers who wish an agricultural journal for the reason that it is published solely for the benefit of the farmers, and is not, as too many of the so-called agricultural journals are, in the interest and pay of speculators.—*Huron Co. News.*

WEATHER IN NEW MEXICO.—Of the weather in New Mexico, the *New Mexican* of the 14th ult., says:

This spring has been one of the most cold, blustering and backward the oldest inhabitants remember to have known. The continuously clear, bright, warm and still days are eagerly whistled for. On Monday, of this week, the mountains were heavily covered with snow, and at intervals swept with sudden gusts through the valley, upon the day previous, Firewood and a moderate fire became again in demand. The usually pleasant days of summer will be an indescribable luxury when they come.

THE WOOL MARKET.

As the new clip is about coming in, and Michigan has assumed a leading position in wool growing we this month give a full account of prices and opinions at the points which are the principal markets, together with the Circulars of the wool dealers, which contain much information and advice.

In this State, especially the southerly portions, large flocks have passed under shearers' hands, but in the more northern parts, in consequence of the dry cold spell of the past ten days many have thought it imprudent to clip up to the 14th inst. Wool growers are beginning to fully understand how to get a fair price for their product and already in Michigan have meetings been held in different localities for the purpose of a united action for the general good, and the subject of a Woolgrowers State Convention is being much agitated—a project which we were most favorably, and would advise its calling by the President of the State Agricultural Society, at some central and easily accessible point. The wool crop at 12,000,000 of pounds at an average of 75 cents per pound would amount to nine millions of dollars! Such a vast interest as this should im- Many persons are in the habit of packing and squeezing the fleece into as small a compass as possible. This is not the proper way. Leave the fleece bulky, so that the fine, beautiful qualities of the wool will at once attract the attention of the buyer! A little care in these matters, we are assured, will greatly advance the reputation of Michigan wool in Eastern markets.

In Detroit, wool is being taken up as fast as brought in by buyers—still farmers, seem to know their business pretty well this year, and all who have room and can afford to hold on are resolved to do so—consequently not a very large amount is changing hands, much less than is usual at this season of the year. Many wealthy farmers are buying up the more needy ones stock at their own door, thus keeping much of it out of the speculators' hands, thus being better able to command what they deem a fair price. Manufacturers should deal more exclusively with the producers and there would be a better understanding among all concerned.

Prices in Detroit ranges as follows:

Pure blood Merino, extra clean	72@75c.
Mixed blood Merino, good order	68@72c.
Canada long clean fleece	55@60c.

Wool is coming into market quite freely in the towns and cities in the interior of the State. It finds ready buyer, and transactions are becoming quite spirited. We herewith give the amounts purchased, and the figure paid during the past week at the several points mentioned:

Mr. H. A. Chapin, of Niles, bought 2,000 lbs. 60 to 70c.; average 66c.; D. Lyle, of Dowagiac, bought 1,200 lbs. at 60 to 68c.; average 65c.; L. Rawson, of Decatur, bought 800 lbs. at 70c.; John Dudgeon, Cook & Thomas, and Wm. B. Clark, all of Kalamazoo, bought 2,000 lbs. at 65 to 75c.; average 70c.; A. L. Mason, of Galesburg, bought 600 lbs. at 70c.; O. C. Collins, of Battle Creek, bought 1,000 lbs. at 65 to 72c.; average 70c.; G. B. Murray and C. Dickey & Son, of Marshall, bought at 65 to 72c.; R. Aldrich, of Parma, offered 73c. for one load of 600 lbs.—75c asked, not taken, and stored; H. S. Isman, of Jackson, bought 3,000 lbs. at 68 to 73c.; average 70c.; Patterson & Co., of Grass Lake, offered 70c. for 600 lbs., 75c asked—stored; Babcock & Durand, of Chelsea, bought 162 lbs. at 65 to 70c.; average 68c.; Four buyers at Ann Arbor, bought 3,200 lbs. at 68 to 75c.; average 73c.; Yost & Alexander, of Ypsilanti bought 900 lbs. at 65 to 75c.; average 70c.

PROTECTION TO WOOL-GROWERS.

A correspondent of the Detroit *Tribune* writing from Washington, June 12th, says:—

The farmers of Michigan will be gratified to learn that the new tariff bill, as it passed the House, affords largely increased protection to wool-growers.

The new tariff fixes a duty of three cents per pound on all foreign wools, the value whereof does not exceed twelve cents per pound; exceeding twelve cents and not exceeding 24 cents six cents per pound; exceeding 24 cents, ten cents per pound; and in addition thereto ten per centum *ad valorem*. It is also provided that if any attempt is made to reduce the value of the imported wool, by an admixture of dirt or any foreign substance, or if it shall be imported in any other than the ordinary condition, it shall pay the highest duty of ten cents per pound and ten per centum *ad valorem*. This sort of cheating by mixing dirt with the wool, has been often practiced, and this is the first time that a preventive measure has been passed. It is also provided that when bales of different qualities are invoiced at the same price, that duties shall be collected upon the whole invoice according to the value of the bale of the best quality. This will cut off another prolific way of cheating. Again, wools that are increased in value by being cleaned or scoured, except while on the sheep, are required to pay fifty per cent. in addition to the other duties imposed.

I understand that the Senate Committee on Finance have agreed to the bill, so far as it relates to wool, as it passed the House. This will be likely to ensure its retention by the Senate, so that our farmers may reasonably expect the bill to become a law as it now stands.

WOOL.—The new clip comes in slowly, a few hundred lbs only having been received the past week. The prices average about 65 cents, though in some instances 70 cents has been paid. Growers are rather shy about selling at present prices, and seem disposed to hold back. Upwards of 2,000 lbs old wool has been taken during the week, mostly at 72-74c. It should be remembered that old wool is worth 5 to 10c per lb more than new, of the same grade, so that the price of old is hardly a fair criterion for the new clip. —*Monroe Commercial*.

WOOL.—Our wool market is only moderately brisk. The new clip begins to make its appearance.—We quote it 65 to 75 cents. A. P. Mills & Co. are buying largely, and have purchased some of the finest clips of the season. —*Ann Arbor News*.

WOOL.—A few clips of new wool have already been sold in the market, at prices ranging from 65 to 70 cents. Last week Messrs. McPherson & Mills purchased 3,000 lbs.—last year's

clip—of T. Drew, of Marion.—Price paid 75 cents. —*Livingston Republican*.

WOOL.—But very little wool is now brought to this market. The prices offered by buyers is from 65 to 70 cents. —*Livingston Republican*.

WOOL.—Wool of the new clip begins to come forward, and the market opens at good prices. Buyers offer 70-75 cents. —*Monroe Monitor*.

WOOL.—The first load of wool for this season came in today, and sold for 75 cents. It consisted of about 600 pounds of first quality. —*Adrian Watchtower*.

WOOL.—Wool mongers begin to talk, and the price, they say, will range in the neighborhood of 75 cents per lb. —*Albion Herald*.

WOOL.—Wool arrives slowly, growers being shy of selling at prevailing prices. 60-70c is about the range. No change in quotations of other articles. —*Ann Arbor Argus*.

NEW YORK MARKET.

WOOL.—The *Economist* says, that inquiry for this staple is good, though the market is not very active, owing to the light stock offering and the extreme prices asked. The sales, however, are large in the aggregate, and prices are again firmer, and have a strong upward tendency at the close, influenced by the rapid advance of gold, exchange and cotton, as well as a disposition among importers to withdraw supplies from the market, in consequence of the extraordinary rise in sterling exchange, which absolutely precludes the possibility of laying goods down here now from abroad at current rates.

There is, however, considerable "nervousness" on the part of both buyer and seller, pending the action of things, and much caution is exercised by both parties. Uncertainty as to the future precludes the buyer from purchasing and the seller from selling, and every little rumor excites the nerves of the sensitive; in a word, the "trade seems at a loss to know what to do." Fleece wools are 2½ and 5c. per lb dearer, Foreign 5 a 10 per cent. higher, and still tend upward.

Congress is about to impose a tariff on raw wool that will carry prices to a point never before heard of, with sterling exchange at 218 in currency and 109½ in gold. Is it any wonder then that Wool should rule high! It is an astounding wonder it is not amazingly higher than it is at present, and manufacturers may well rue the day they did not lay in an enormous supply of Wool, when it could be had at comparatively low prices. They stand and tarry now, even at the eleventh hour, about purchasing supplies which they want and which they must have at any price, and the sooner they are made to realize the fact the better.

The sales include 250,000 lb Fleece, in lots at 79 a 87½c.; including 30,000 lb Ohio do, 85c.; 20,000 lb State at 80c.; 50,000 lb State and Pennsylvania at 83 a 85c., and 10,000 lb Pennsylvania,

87½c., the balance in lots within the range. We quote Ohio Fleece 83 a 88c.; New York State do, 78 a 85c.; Pennsylvania do, 83 a 88c.; Illinois, 73 a 80c.; Wisconsin, 75 a 82c. Of Pulled, 150,000 lb sold at 73 a 83c. for super and extra, and 88c. for double extra. 60,000 lb California, 30 a 58c. for burry and free of burs, 900 bales Cape, 49 a 52½c., now held at 52½ a 55c. and upwards, and in request. 150 bales unwashed Smyrna, 42 a 44c. for good; 160 bales Cordova, on private terms, for which 65c. is now asked and cannot be bought less; 100 bales Provence, 57c.; 20,000 lb do, 300 bales White Donskoi, 170 do Black do, 165 do unwashed Solonica, 150 do Rio Grande, 46 do Crimea, 200 do low Buenos Ayres, 60,000 lb Rabbatt on private terms, and 2 a 300 bales Mestino, 40 a 45c. We quote Cape 48 a 58c.; Mestizo, 25 a 45c., with a decided upward tendency for all descriptions, and no eager disposition on the part of holders to sell.

BOSTON MARKET.

The demand for domestic wool has been more active the past week than for some previous weeks, and there is decidedly a firmer tone to the market, but no improvement in prices has taken place, although the market appears to us to have a strong upward tendency. With the present large consumption—the high price of cotton—the rapid advance lately in the rates of gold and exchange—and the proposed increase of tariff, domestic wool is now a comparatively cheap article, and we would not be surprised to see quite an improvement at an early day. Private advices, from different sections of the country represent holders of the new clip as very firm in their views. From 75a80c appear to be the prices fixed for good lots, but we doubt if any considerable quality could be purchased even at these figures. In Canada we understand that large contracts have been made at 35a40c, but 44a45c are now asked. With exchange at 208a209, it is very easy to figure up the cost of Canada wool placed here at these figures. There is, of course, a great deal of uncertainty about the future, but all indications at present point to a higher range of prices than have lately prevailed. The sales of domestic the past week add up 625,000 lbs at prices ranging from 72a90c per lb for fleeces and pulled. Included in the sales were 6a7,000 lb choice Pennsylvania fleece at 90c; 100,000 lb do, 87½c; 6,000 lb fine Ohio at 88c; 97,000 lb Michigan and Ohio, at 79a84c; 30,000 lb good Ohio, at 84c; 4,000 lb medium Ohio at 83c; 9,000 lb coarse do, 86c; 5,000 lb do, 78c; 20,000 lb New York, 79c; 25,000 lb do, 80c; 10,000 lb do, 78c; 15,000 lb coarse Indiana, Illinois, Michigan and New York, 72a75c; 39,000 lb extra pulled, 83a87½c;

and other sales at prices in the range. 90c may be considered as the outside figure for the best grades of fleece, and very choice, and very choice extra pulled continues to be held at 90a95c per lb. In Canada wool no transactions here of any importance, but large contracts have been made for the new clip at 35a40c, in gold, and now held there at 44a45c per lb. There has been considerable inquiry for the better grades of foreign wool and the market is firmer and higher. The sales comprise 1,700 bales Cape, including 600 bales in New York, at from 47a52c, and in some instances as high as 55c for choice lots, 100 bales Odessa on terms we did not learn; and 613 bales Mediterranean, Cape and South American at various prices as to quality.—*Shipping List.*

PHILADELPHIA MARKET.

There is a very firm feeling in the market—some holders having succeeded in realizing an advance of 1a3c per lb, and a steady inquiry from the manufacturers. The farmers in the West demand high figures for the new clip. They should bear in mind that the holding back of domestic supplies, last fall induced most manufacturers to take hold of foreign wool as a substitute; and as this experiment was attended with unexpected success, it gave an immense stimulus to imports and resulted in a corresponding neglect of the domestic article, which finally broke down the market for the latter during the early part of the year just when it should have been the most buoyant and active. It was not until very late in the season, when when a high tariff began to be talked of, and the rates of gold and exchange went up to a point which of itself checked importations both of wool and its fabrics, that the domestic wool market recovered from the damaging effects of this holding off policy.

The sales comprise—

30,000 lb fine at	85c, cash.
180,000 lb medium	80a85c, "
10,000 lb Jersey and Western	75a85c, "
14,000 lb Merino pulled	78c, "
1,500 lb black pulled	50c, "
14,000 lb California	45c, "

PROVIDENCE.—Sales for the week 15,000 lb Fleece at 82c, 8,368 lb Foreign at 36c.

ST. LOUIS.—The new clip is coming in more freely, and influenced by the advance in gold and the Eastern advices, the market has improved. Sales in the past three days have included unwashed from 45 to 47c, fleece washed from 65 to 70c, tub washed and picked from 75 to 80c per lb, which were the market limits at the close.

The Farmer has identified itself fully with the wool growing interests of Michigan, and we trust our friends will forward us all the items of interest in regard to Wool.

WOOL TRADE CIRCULARS.

We extract the following from Thomas Constantine's Circular, dated New York, June 1st:— During the past month prices have advanced from 5c to 7c per lb in view of the advanced rates of duties. The new clip will no doubt, open high, and we presume it will be some time before much of it finds its way into the markets, from the fact that a heavy duty will be levied on foreign wools, and thereby (to some extent, at least,) prohibit importations, and with this idea, farmers will hold as firm, and probably firmer than last season, thereby rendering it difficult for buyers to operate. Some small lots of new clip are coming in from New Jersey, and our adjoining neighborhoods, which are readily taken at from 70c to 75c per lb. These wools are well washed, and little or no twine on them, which make them desirable stock. As the season will soon open for shearing in the West, I deem this a proper time to make a few remarks relative to the price, condition, and putting up the new clip. I would advise farmers not to be led too far into the belief that exorbitant prices can or will be paid, but rather let a fair remuneration according to quality and condition satisfy, for by putting prices of domestic wool at too high a figure, may again compel manufacturers to resort to the use of foreign stock; there is a point to which the price of domestic wool can be carried, and beyond which it will not be wise to go, as it would frustrate to a considerable extent the benefit expected to accrue from the new tariff. Therefore, I would advise the farmers to study the matter well over, and candidly and fairly decide upon the subject of selling, bearing in mind the old and appropriate usage, "Live and let live." In reference to the condition and manner of putting up the new clip, I would recommend that more care be taken in washing the sheep. Some sections of the West that have heretofore borne the character of getting up their wool in good order, are fast losing their reputation by allowing their sheep to run too long after washing; last season some farmers allowed their sheep to run from four to six weeks before shearing, thereby giving time for the grease to get started into the wool again, so that when it shorn it is almost in as bad condition as unwashed wool; and not satisfied with this, they frequently put inside the fleeces (when they tie them up), all their tags in an unwashed state; this is fraud, and as such, the parties are liable to punishment, and we hope buyers will be more cautious in their examinations, so that the farmer who does up his wool in good condition and honestly, may receive the reward of well doing. Another point to which I would refer, that of putting on an unnecessary quantity of twine; we

find sections, particularly this State, and the State of Michigan, where the article used for tying up fleeces, and called twine, approaches the character of ropes, and of which there will be sometimes from forty to fifty feet, weighing from four to 6, and sometimes eight ounces on each fleece, this increases the cost of the wool to manufacturers, which added to the shrinkage in cleaning, brings the clean wool to such a high figure, that although we may have a heavy tariff, still, foreign wool may be the cheapest to manufacturers after all. Pulled wools have been in good demand at improved prices; desirable lots have generally been taken as fast as they have been brought in.

We extract the following from Walter Brown's Circular, dated New York, June 1: May does not usually witness a very active wool market, and the month just passed has not been an exception. As a general thing, manufacturers have bought only to supply present wants, their attention being turned to the approaching new clip, from which they expect to derive better selections if they do not realize lower rates. Some buyers with large contracts for goods have, however, thought it prudent to secure without delay a portion of their needed supplies. The demand from this source, together with the advanced rate of exchange, the high price of wool abroad, and the probability of a largely increased tariff, has maintained a firm feeling with holders, and prices are somewhat higher than a month ago. As usual at this time of the year, those interested in wool are anxiously waiting to see what the opening prices will be, and many opinions are held on the subject, but with the probability of an increased tariff, growers will demand full prices. Congress has not taken final action on the new tariff law; it is therefore impossible to state with confidence what increase of duties will be made, but a material advance on the existing rate is almost certain. We think manufacturers will prefer to take their chances in the market rather than to lay in heavily in the country at what they consider exorbitant rates, and dealers will to a great extent participate in this feeling. We may, therefore, look for a steady, though perhaps not a very rapid movement of wool from West to East, through the coming season, and anticipate a regular healthy trade in our market here. Pulled wools have been in active demand, and good lots of super have been taken freely and are still sought for by flannel manufacturers and others, who wish to lay in supplies while the assortment is fair; the season is about over, and prices will probably improve for the stocks on hand. California wools are in light stock and firmly held; they are growing steadily in favor with those

who use them. The first shipments of Spring clip that have arrived by steamer are in good condition, and we think will meet with ready sale. Good medium foreign wools are very scarce, and all grades are held for extreme rates, some owners declining to sell at any price.

From the circular of Coates, Brothers, we quote a little more fully, as giving some facts which may serve as a foundation for their suggestions:—"There is always much speculation at this time of the year in regard to the prices at which the new clip will open in the west, and there are so many contingencies at this time bearing upon the course of trade and finance, that it is almost impossible to form an intelligent estimate of probable prices."

"From the best sources of information and census statistics, the number of sheep in the country in 1860 is put down at 23,668,915, and the great increase known to have taken place during the past two years, would make the aggregate at this time over 30,000,000, yielding perhaps over one hundred millions of pounds of wool. Of the old clip there is supposed to be unsold about one-tenth, mostly in the hands of growers, while the stocks in hands of dealers, though light, is much greater than usual for the season. The proposed increase in the tariff on foreign wools, it is thought will, when it becomes the law, keep them almost out of competition with the domestic; but the stock in port and on the way is much larger than in former years."

"The great increase in woolen machinery throughout the country will, however, require an immense amount of wool for consumption, and the question of prices will depend much upon the disposition of growers, whether to sell at this time or to hold their wools out of market to so great an extent as last year, while their experience from that operation would show them that those who held their wool until the latter part of the season, realised little if any more than those who made earlier sales."

Wool has opened at fair prices for the new clip, averaging about 70c. per pound throughout Michigan for good quality Merino, at this rate we think it will reach between 80a90c. in the fall.—w. s. b.

FRUIT PROSPECTS.

The St. Joseph *Traveler*, says: We see it stated as an item of State news both in the *Advertiser and Tribune* and *Free Press* of Detroit, that the prospect of fruit in this county, is very discouraging. This is by no means the fact. The peach crop will, of course, be light, although by no means an entire failure, unless a late frost shall destroy what we now have promise of. Nearly all the orchards will produce some peaches, while

there are those which bid fair to yield, some one hundred and some as high as a thousand baskets. This showing is a great tribute to the locality as a fruit-growing section. We judge quinces will yield in about the same proportion although it is a fruit not very extensively cultivated here. Apples promise to be fully an average crop so far as we can judge from our own somewhat limited observation and information gathered from fruit growers in the different townships. The cherry, if true to present appearances, will give a large yield. The number of trees planted is very great and the varieties represented are among the very best known to fruit culturists. The pear, next to the peach, is a specialty in this vicinity, and all the trees that we have seen, are now profusely loaded with blossoms. The crop must be good, and in the absence of the usual number of peaches, this delicious fruit will demand a very high price. The strawberry is extensively cultivated here, and the prospect for an unusually large crop this year, was never more flattering. It will be in market within two weeks from this date.

Raspberries and blackberries are also receiving attention, and will no doubt pay well. Both will produce well this year. Currants will be in greater abundance than ever before. Grapes also promise well.

These suggestions of course refer to what is known as the fruit-growing district of Northern Berrien County.

We hope all our citizens will take especial pains to get all the facts which bear upon this point, and put them in the way of being made known to the public at large. They are sufficient to stamp the locality as one of the finest in the entire country for the culture of fruit.

The *Monroe Commercial*, says: We have scarcely ever seen a more abundant and general blossoming of apple trees than has been presented to the eye this spring, in this locality, and from present appearances we are to have a full supply of this staple fruit, at least. Peach trees present a sorry appearance, being more dead than alive. Of course we shall have no peaches. The trees may possibly recover, or some of them. Pear trees we think, have blossomed rather scantily, and cherries ditto. People will have to make "two bites of a cherry" this year, if indeed they are lucky enough to get a bite at all. But in the berry line there will probably be no lack, with favorable weather. Strawberries and raspberries bid fair to yield abundantly.

The *Allegan Journal*, says, the fruit and wheat prospects, in Allegan county, we are pleased to learn, are in the main good. We have been accustomed to feel that the peach crop in this county was reliable; but the severe cold of January took hold upon us with such firm hand that this pleasant, delicious fruit has gone by the board, and for the coming year the Alleganites must satisfy themselves with apples, pears, cherries, and such like fruit, which, we are pleased to learn will be abundant throughout the country.

California Correspondence of the Michigan Farmer.

THE VALLEYS OF CALIFORNIA.**THEIR CLIMATOLOGY, SOIL, AND PRODUCTIONS.**

PETALUMA, Cal., April 16th, 1864.

MESSENGERS. EDITORS.—It is a number of months, since I wrote you from this beautiful country. I have now been in the State nearly four months, and myself and family has enjoyed uninterrupted good health during that time. I consider this a very healthy climate, altho' there is an occasional case of consumption. Typhoid fevers and diphtheria also occurs, but not commonly. Valleys have their peculiar diseases. The upper valleys are more subject to the different kinds of fevers, and scarcely a case of consumption is known.—In the valleys near the coast consumption and sore throats are the prevailing diseases, and fever is rarely occur. The coast winds are unpleasant to new comers in this locality, and frequently causes severe colds to persons unaccustomed to them.

Aside from the winds and occasionally heavy fogs, this is by far the most desirable portion of the State that I have been in. Crops, they say, never fails by drouths or floods and grasshoppers, or other destructive insects have never visited this section of country. I left my family at Oakland, and took a four weeks ramble through the different valleys up the coast, a distance by land of about 150 miles—I traveled on horseback so that I might have a better opportunity of seeing more of the country, and take my own time for observation. Oakland is the most beautiful spot I have seen in the State. The soil is extremely fertile, and appears to be better adapted to vegetables and fruit than to grains. Oats and barley grows well, but wheat, corn and potatoes generally fails. It is quite an extensive valley, and is famous for its fine buildings and beautiful gardens. I left Oakland valley by the Telegraph road leading up a deep and narrow ravine into Morogar valley, distance 12 miles; this valley consists of a succession of narrow vales among high hills and all bordering upon a small stream called Walnut creek—the soil is mostly fertile, and in many places extremely so; it is of a clay or loam; the title to the land is unsettled, consequently there is but little improvement as yet. I soon crossed a range of low hills thro' a gap in the mountains, to the Sanramone valley, a distance of 8 miles—this valley is quite level, with a sandy and gravel soil, is 12 miles long and 4 to 6 wide, is very fertile, and adapted to all kinds of small grains, grass and roots, except corn and potatoes. At the head of this valley is Pocheo, a flourishing little village in a small valley of the same name, watered by several small creeks. At the southern end in

this valley is Mt. Diabolo, (Devil's mountain) where there are extensive coal mines. Six miles from Pocheo is Martinus, another small village, and situated on the upper part of San Francisco Bay, opposite Benicia, which is on the north side of the river or bay. A ferry boat runs from Benicia to Martenus, every two hours and back.—Benicia is a flourishing place, the Government having quite extensive works at this point, and is surrounded by a splendid farming country—the surface being rolling and best adapted to the growing of small grain—the soil is quite heavy and looks more like clay than any I had seen. Farmhouses were large and commodious, and the country generally looked thrifty—very little stock of any kind to be seen except teams. Benicia is where the Government Camels were sold at auction for \$50 to \$55 each this spring. Twelve miles from here is Valejo, another flourishing little village situated on the Bay, and backed by a magnificent farming country, but not so rolling as about Benicia. Eight miles further is Suscoll, also on the bay but not much of a village and country rather poor, the surface being covered in many places with bed rock, making rather a shallow soil. Fifteen miles on is Sonoma. I crossed the Napa valley—this valley is said to produce the finest wheat of any in the State, and farming is carried on to the greatest extent I believe. It is a beautiful valley and very fertile, but rather warm in summer, and is frequently visited by drouths. Sonoma is a charming valley, famous for grape and other fruit raising, soil very fertile and easy to cultivate, being of a sandy nature; it is considered one of the most pleasant and healthiest to live in, being shut out from the coast winds by the high mountains on the west and north. Land is high in this valley, selling at \$100 per acre in some instances. Leaving the village of Sonoma I crossed the Sonoma creek and struck across a soft muddy flat about three miles; this soil is a sort of clay called "adobe," it is about the color of much and very adhesive, being almost impossible to plow either wet or dry, but it is extremely rich and productive when cultivated.—The time to plow it is when first saturated by fall rains—then a double team will break it up 3 or 4 inches deep, if kept in cultivation after that it is not hard to work, but it cannot be plowed deep. It yields tremendous crops of grain and roots, except potatoes and corn. I saw a French sugar beet raised on this same soil that weighed 96 pounds! Wheat has frequently turned sixty bushels per acre on "adobe," poor plowed at that. The land on either side of the road from the creek to the foot of the Sonoma mountains (3 miles) is one lot for pasture, being level and interspersed

with scrub oaks, and is certainly a beautiful piece of land—cattle and horses were feeding at their leisure, or laying in the cool shade. Mr. Swift lives on the left hand side of the road, and owns about 20,000 acres, and has a magnificent stone house and outbuildings. He is said to have bro't bushels of gold dust with him from the mines in 1850, and bought this land very cheap, with an extensive herd of Spanish cattle. The fencing up the vacant land curtailed his pasture grounds, and his own land was not sufficient, his cattle became poor, the prices of beef came down, he could not sell, and his cattle died by hundreds for want of grass, so that he has few now in comparison to what he originally possessed, and 12,000 acres of his land is now advertised for sale to pay debts with I have been informed. General Valejo lives on the right hand side of the road, and owns more sheep than cattle, and about as much land as Swift does, and he formerly owned all the land that joined him, claiming the balance.

I ascended the long hill to the first bench, where a road turned through a gap in the mountains. Here I got off my horse to rest, and take a view of the valley. To say it was beautiful, would give but a faint idea of the loveliness of this picture of nature, so I will let you imagine what is like or wait until some novel writer visits it who can do it justice.

The houses are almost all painted white or whitewashed, also the outbuildings. The field are green with young grass or grain, or freshly plowed to receive seed, and the fruit trees were putting forth their leaves, and everything looked prosperous and thrifty. From my elevated position I could see every house for many miles, and the direction of the streams, roads and fences, persons at work, and flocks of cattle and sheep quietly feeding. The thrifty little village lay below, with its spires and domes glistening in the sun light. I turned with a sigh from the lovely picture and mounted my horse weary with the fatigues of the day, for it was after 2 o'clock and I had not yet dined.

After riding five miles over beautiful hills I struck a fine stream of water cool and clear, after a refreshing drink for myself and horse, I followed the stream about a mile I came to the Widow Hinkston, who has a lovely place of 220 acres all fenced. The house stands in a fine grove of oaks and evergreens, but it is sadly neglected—her sons (3) are secesh, and do not like to work, but had rather hunt, so the good old lady is rather in want of some one to keep the place in good order. Four miles further is Lakeville, it is a landing for boats, and is situated on the east bank of the Petaluma creek, that empties into the bay at the north. Here the country is very rolling

but fertile, and is adapted to dairying and grain raising. Where the hills are too steep to plow, they can be mowed or pastured and pays well for either. I called on Mr. Daniels, at Lakeville, and stayed over Sunday, I found him very much of a gentleman. He owns about 1000 acres of land mostly plowed. He runs a dairy of 50 cows and three teams of three fine American horses each, and also eight fine breeding mares, besides five good stallions, some excels in speed, some for draft, and some for style and action.

Seven miles from Lakeville is Petaluma, at the head of tide-water, and it is a smart business place being the market town for an immense scope of farming, stock-raising and dairying country. The valley is quite an extensive one with fertile soil. The hills on the west are full as rich as the valleys for most kinds of grain and fruit, but is some colder and about one month later in the season than the more southern valleys of California. In the different valleys above Petaluma, the farmers commence sowing fine grains about the 1st of February and continue until the 1st of April, and then prepare to plant corn and potatoes.

As my letter is getting somewhat lengthy I will give a general description of several valleys which I visited and close. Eighteen miles from Petaluma is Santa Rosa, situated in an extensive valley of fertile land, altho' some of the country between Ayres and Santa Rosa seems to be rather of a quicksand order and must be rather unpleasant and muddy in the winter, and dry up badly in the summer. From there to Heelsburgh sixteen miles is a beautiful country, but I think a good portion of the soil is rather poor from the looks of the buildings; but the inhabitants are from Missouri, and you seldom see much thrift among them. Heelsburgh is a smart, thriving little town, having three churches, three schools, one tannery, one tobacco factory and two hotels. So you see Missouri don't predominate there; it is on the Prussian river—the valleys or bottom land of this river are immensely rich, but is only 1 1-2 to 2 1-2 miles wide. Here they raise great crops of corn, and in fact every thing else to an enormous extent, but it is so far from market they cannot afford to haul the grain, so they feed it out mostly. Hogs, poultry, beef cattle, butter and eggs are the staple commodities of their trade. Twelve miles from Heelsburgh the river enters the Redwood hills and farming comes to an end. Then comes Green valley, famous for its fine fruit and the sand hills round it for big rabbits and coons, and that is all—the valley is small and secluded. Another twelve miles I entered the Bedago country; as I emerged from the thickets of lofty redwood, spruce and cedar I came in

view of the fair rolling hills of Bedago—it seemed like entering another country. This is the famous land for potatoes, they grow almost spontaneously year after without planting if seed is left in the ground. The highest hill tops (and there are some high ones) raises the largest and best if the ground can be plowed. The potatoes are cut one eye in a piece, and dropped about one foot apart in every third furrow at the first plowing and have no more attention until digging time comes. Sometimes they are plowed or dug out with a machine, at another by Indians. The potatoes are either put in sacks of 120 lbs. each, or in large piles and covered with straw until sold. Farmers frequently plant as high as 200 acres in a season. The soil of the Bedago country, and the Two Rock and Big valleys are of a rich sandy loam, is easy plowed, and raises enormous crops of all kinds of grain, vegetables and fruits. The plows in use are small and light, generally drawn by three horses, mostly small and thin in flesh. The ground is only plowed once for any kind of crop, and the crops cut with machines of the best patents, and threshed in the fields, as barns are scarce, and then sacked for market. The average crops are—Wheat from 25 to 60 bu. Oats 40 to 100; Barley 25 to 60, Potatoes 150 to 300 per acre. Hay is either wild oats or volunteer grain from last year's seed, yielding from 1½ to 2½ tons per acre. It is nothing uncommon for one farm to produce 20,000 bushels of grain in one season. This sounds large, but it is nevertheless true—still farmers say they "can't make it pay," and I don't wonder at it, and I will tell you why in my next letter.

With respects, WILLIAM J. COLVIN.

Land for Emigrants.

The California Farmer says: We have a letter of inquiry from Michigan. We have also letters of similar import from Illinois, Iowa, New York, and from Pennsylvania; and hardly a mail arrives that we do not receive letters of inquiry for land and "homes." This is a good sign for our State. We send the Farmer to all applicants to show them the condition of our State. To such immigrants we call their attention to the large tract of land known as the "Antelope Ranch," advertised in our paper. Here is a good opportunity for new comers. Let them look to it. Call at our "Reading-room," and we will aid them in getting homes. The Antelope Ranch is a splendid tract of land, the last year the crops were fair; barley, 75 bush, per acre, wheat, 30 bush, tobacco was grown successfully, 10 acres in one lot—and there is no product that will not grow luxuriantly. Living streams of water are abun-

dant on the place. It is a deep rich soil, a prairie land of noble appearance, capable of making five hundred happy homes. New roads are being laid out around and across this great tract of country which is now easy of access—the soil is from 3 to 10 feet deep.

There is also 14,000 acres for sale in Sonoma Valley one of the most productive and healthy in the State—it is well watered, bounded on the south by San Pablo Bay. It is easy of access to San Francisco market, and not surpassed in any respect by any tract of the same size in California.

THE PROPER TIME FOR CUTTING WHEAT.

• A correspondent to the *Germantown Telegraph* from Chester County, Penn., says:—This harvest I have made some careful and thorough experiments to ascertain the proper degree of ripeness which wheat should attain before being cut, and knowing that you can appreciate such experiments, I have sent you a short account and the result, which you must use as you see best.

About this time last year I noticed a series of experiments by one of your correspondents, made for the same purpose; but I think his plan, though a good one, is liable to error; he compared the wheat by grains. The grains not being regular in size, a variation might sometimes occur. To avoid any possible error on this score, I have compared equal measures of mine by weight, and as it is usually sold by this gauge, it is perhaps the most proper one. Another objection to his plan is, that having a small number of grains, the experiment may be affected by extra heads of wheat. To obviate this trouble, I cut several sheaves (three during a portion of the time, and two the balance) every morning. The manner of conducting the experiment was this: Several of my neighbors as well as myself being desirous of having the experiment tried, we agreed that I should try it, and if any loss occurred thereby, it should fall on all equally. On the 26th of June we selected from my field a portion near one side, which seemed to us to be as evenly ripened as we could get, and at the same time appeared to be a fair average of the whole field. The field had been plowed twice, well harrowed and manured, the seed drilled in at the rate of 1½ bushels per acre. In the spring, as soon as the season would admit, the field was rolled with a heavy plank roller, to press down any roots which might have been thrown out by the frost, an operation which will repay many times its cost, (about 62½ cents per acre.)

The experimental cutting was commenced on the morning of the 27th June, and from that to the 1st of July, two good sheaves were cut every

morning at or near six o'clock; from the 1st to the 20th of July three sheaves were cut every morning. These sheaves were cut with a sickle, and a metal label containing the date, was tied to the band of each sheaf; every morning they were carried from the field to the barn, and laid on a mow over the barn floor. Each set of sheaves remained in the field one day, and were then housed; if wet, care was taken to dry them well.

On the 1st of August the sheaves were taken down and threshed, by striking the heads over the edge of a board laid on an open barrel, and each lot carefully by itself, with its proper label. As soon as all the lots were threshed and arranged, they were compared with the following result. Equal measures of each were taken.

One measure of that cut on

July 20,	weighed	18 pounds, 14 ounces.
" 19	"	" 18 " 14 "
" 18	"	" 19 " 2 "
" 17	"	" 19 " 3 "
" 16	"	" 19 " 6 "
" 15	"	" 19 " 6 "
" 14	"	" 19 " 8 "
" 13	"	" 19 " 11 "
" 12	"	" 19 " 12 "
" 11	"	" 19 " 14 "
" 10	"	" 19 " 13 "
" 9	"	" 19 " 12 "
" 8	"	" 19 " 10 "
" 7	"	" 19 " 7 "
" 5	"	" 19 " 5 "
" 4	"	" 19 " 3 "
" 3	"	" 19 " 1 "
" 2	"	" 18 " 13 "
" 1	"	" 18 " 10 "
June 30	"	" 18 " 6 "
" 29	"	" 18 " 5 "
" 28	"	" 18 " 0 "
" 27	"	" 17 " 10 "
" 26	"	" 16 " 2 "

By reference to this table, we find that the parcels cut on the 10th and 11th of July were the heaviest by nearly one pound, and from these, dating both ways, the weight decreases. Here, then, is a question in simple arithmetic. If I gain 1 pound on 19, how many would be gained on one bushel, or 60 pounds? About four and three-ninths pounds, I think.

You will notice that on the 5th and 6th of July there was not the usual difference; this I attribute to the fact that those days were cloudy and cool, with some rain in the mornings. The same may be said of June 30th and July 1st, also of July 15th and 16th.

During the first six cuttings, the grain when crushed between the fingers left nothing but the husk and a fluid resembling city milk more than anything else that I can think of. During the next five it seemed to become much thicker, and the husk became more solid. That cut on the

8th, 10th and 11th, when crushed, seemed to be a soft pulp, with no juice. That cut on the 15th could be broken very readily; while the last cutting cracked under the teeth, like wheat which has been kept all winter.

In that cut June 27th, the straw was yellow one joint from the ground; in that July 8th, it was yellow just above the second joint; and on that which was cut July 11th, the straw was yellow within two joints of the top.

In order to test the matter still farther, samples of each were taken to an old and experienced Brandywine miller, and his judgment was asked, without his knowing anything about the experiment. He, after a little hesitation, picked out that cut July 11th, as best suiting his purpose, but he hesitated between the three parcels cut July 12th, 10th and 9th. He told us that the parcels numbered 13, 14, 15 and 16, (cut July 8, 7, 6 and 5,) looked as well as any, but did not weigh as much, and would dry away more than those which he selected as the best.

To find their relative values for flour, the different parcels from July 4th to the last cut were put to a still farther test. That cut on the 5th, 6th, 7th and 8th was well mixed together, and exactly one bushel taken to the mill; that cut on the 9th, 10th and 11th was served in the same way; so also was that cut on the 12th, 13th, 14th, 15th, 16th, and that cut on the 17th, 18th, 19th, and a small part of that cut on the 20th, thus making four parcels of one bushel each. The miller was in the secret this time, and was requested to make the greatest possible amount of good flour and the smallest amount of bran he could out of each of the four lots. In the first and earliest cut bushel the proportion of flour was 75 per cent; in the second lot 78 per cent; in the third lot 76 per cent; and in the last and fourth lot 74 per cent.

The miller (an old hand) pronounced a pound of flour from No. 2 to be far better than the same amount of any of the others.

The last cutting (July 20th) was what I would call "dead ripe," that is, the grains were loose in the chaff, and were very easily shaken out. That cut July 10th and 11th, when it got dry in the barn, threshed very easily, but not so easy as the other, the chaff seemed lighter, and even now is not so stiff and harsh as the other.

So much for the experiment; now for our conclusions: All the members of the party instituting the experiment received unanimously, That the proper time to cut wheat is when the grain in the middle of the ear can be crushed between the fingers, and leave nothing but the husk and a thick pulp, without any fluid around its edges.

ENTERPRISING FARMERS.

There are not very many evidences of an enterprising agricultural population in the State of Michigan. The farming communities are composed of hardworking, industrious men, a class, and they number very many thorough and successful farmers, but so far as heard from they "follow the known and frequented road." There are some exceptions. Taken together as an entire class, farmers, or those who till the soil, or direct its tillage in this country, far exceed in knowledge and general intelligence than the same class of persons in any other country. Yet in England and France, and perhaps some other countries, agriculture is progressing faster, and applying improvements to a greater extent than we do. The newer and more improved methods of agriculture, as learned and demonstrated by experiment of learned and scientific men, there meet with some encouragement, and are extensively applied in the general cultivation of the soil, and a large increase in the productiveness of the countries has been the result. Many means have been adopted to encourage more correct and proper methods of farming in this country, and more especially in this State, and much has been accomplished, but to no great extent, or at least to no corresponding extent, has any general benefit ensued.

The Secretary of the State Agricultural Society in an address before the winter meeting at Ypsilanti last winter, said, "If we ask to day, are the varieties of wheat which we cultivate of a higher quality, more productive, or better able to contend with its insect enemies, or with the changes of the climate, or better adapted to the peculiarities of our soils than were the varieties grown fifteen years ago, what would be our answer? I fear very much that we would have to answer that in no one of these points were our wheats of 1864 actually equal to the wheats of 1849." And the same answer would perhaps be given in relation to our other crops, and to some extent also applicable to farm stock.

The reason to be assigned, is the neglect of farmers to apply the knowledge and information they already possess, and their negligence in acquiring more. The exercise of *bone and muscle* is held in too high estimation, and the cultivation of the mind, and exercise of the intellect too much disregarded. In what neighborhood can you not point to a farmer, who, for wealth accumulated by his business, stands among the first, and yet not one year in five do they receive any agricultural journal, seldom ever read a book upon the subject of agriculture, are members of no agricultural society, scarcely ever attend the

county fairs, much less become exhibitors, attend a State fair perhaps once or twice in a lifetime—to see the show. Their method of farming is the most common, the same as that practiced by all their neighbors.

Now what is the secret of their success? It is energy, industry, and rigid economy. They are looked up to as examples, and in many respects worthy of imitation. They are a worthy class of citizens, honest, upright, and generally of the best morals, the "bone and sinew" of the country. They are nevertheless great barriers to improvement. Having succeeded themselves by indefatigable energy and close attention to business, they are out of all patience with any one who attempts to explain to them how they might have succeeded better, or any other method of success for others. They have no word of encouragement for any of the many enterprises that are set on foot for the public benefit of the rural classes. The same methods practiced by themselves, are prescribed for others, and everything else proscribed. Boiled pork and hominy being their favorite diet, and blue jeans and full cloth their chosen apparel, it is boiled pork and hominy and blue jeans and full cloth, that must form the luxuries of their posterity. Living within a narrow circle, and never going beyond its limits, they are not in a condition to improve upon the present order of things. They do not live in the world brought to light by the creative forever, and investigation of the genius of men, but plod along in the one revealed to them through the sense of right alone.

Public interests may be as they oftentimes happens to be, favorite theories with them, but the connection of private interests, or individual cases with public interests and *visa versa*, are never discovered. As a single instance, after having labored about a year in establishing a township Farmers Association, at one of the meetings having recounted our success, our visible success, to wit: The establishment of a correspondence with the Department of Agriculture, and thereby recovering and distributing about twenty dollars worth of superior vegetable and grain seeds, the distribution of agricultural documents, and a fair commencement of a farmers Library, also the interesting and instructive meetings we had held. I was followed by one of these successful farmers, who after having mounted and rode his hobby (all such men have hobbies) over the usual ground, pronounced the enterprise as "rather barren of results."

In order to accomplish general improvement in agriculture and advancement of rural interests the prejudice entertained by the better and wealthier class of farmers towards such things

must be removed, and the general distrust of the abilities of one another removed. The old cannot be moved, it is the influence brought to bear upon the young, that must accomplish the object. And here I have a general suggestion to make to all who are engaged in any such enterprises.—Bring forward the young men, whilst I have repeatedly noticed the case of the projectors and managers of agricultural societies, in choosing the older, and wealthier farmers as executive officers, and committeemen. I have almost as often noted their non-attendance to the duties required of them, and as far as my knowledge goes, executive committees are sparsely attended, and awarding committees, have to be made up on the day their attendance is required.

First of all intelligence should be disseminated, and in the next place, its application encouraged. I have been writing about a class of men, whom I wish I was writing to. I wish every man of the kind in the State were readers of the *Michigan Farmer*. They ought all to be zealous supporters of it. You who do read it, do not misunderstand me. If I have misrepresented you, I will take it back. Plead your case through the columns of the *Farmer*. In the mean time, do not discourage the efforts of enterprising young farmers. Think as much of them, and treat them with the same respect as you do the young men in your neighborhood, who have gone to the county seat to practice law, or initiated themselves into any other well dressed profession.

The good effect of your encouragement of the plans, and schemes, of enterprising young men, is worth more than all the money, or real estate you can give them. Your rigid notions may regard them as unwise; but take this as a living and enduring truth. If they cannot succeed in carrying out their own ideas, they will most surely fail if they attempt to be guided by yours. For my part, I had much rather fail in my own account, and in my own natural way, than to succeed under the directions of some other person. I believe in separate individualities, and as I wish to establish an identity for myself, I advise the same for others.

IDA, May, 1864.
A TREADWELL Affair.—Mr. Hester, father-in-law of Treadwell, the Bank swindler who is said to have charge of the satchel, visited the village of Hudson, one day last week, called on a few of the victims of his son-in-law, and proposed to give his home creditors \$14,000 and Treadwell's effects, leaving foreign creditors out in the cold. The plan was at once rejected, when there was some talk about tar and feathers and ropes. The old gentleman became nervous during the night,

and left the hotel by crawling out of a window, leaving his watch and necktie in his room. The next day he turned up in Adrian, having footed his way through fields and by-roads during the night and day. He only tread well through the fields by the "bright, silver light of the moon."

SHEEP TICKS.

The Practical Shepherd gives the following in regard to the different remedies:

"A very ticky flock of lambs cannot be kept in good order, and when they become poor and weak, towards spring, these destructive parasites rapidly reduce them lower and render it extremely difficult to save their lives. Ticks are found on all sheep in neglected flocks, but the heat and cold, and the rubbing and biting to which they are exposed on a new shorn sheep, drive them to take shelter in the long wool of the lambs. Here they are so readily exterminated, that it is as much of a disgrace as a loss to the flock-master to suffer them to remain in a breeding flock. About a fortnight after shearing, every lamb should be dipped in a decoction of tobacco strong enough to kill the ticks. The last point can be readily settled by an experiment on a few of these insects. The decoction is poured into a narrow, deep box, which has an inclined shelf on one side, covered with a grate. One man holds the lamb by the fore-legs with one hand, and with the other grasps the nose so as to prevent any of the fluid from entering the nostrils or mouth; another holds the lamb by the hind-legs, and they then entirely immerse it in the fluid. It is immediately taken out, placed on the grate, and every part of its wool carefully squeezed. The grated shelf conducts the liquor back into the box. In default of a dipping box, two tubs may be used. After dipping the lamb into one, it is set on its feet in the empty one, the wool squeezed out, and the liquor returned to the dipping tub as often as is necessary.

Mr. Thorne informs me that he mixes whale oil with the tobacco water, until the latter is considerably thickened by it; and he thinks this renders the wash beneficial to the fleece.

A solution of arsenic has been used for the same purpose in Great Britain, and at the present time it is vastly more economical than tobacco. Three pound of white arsenic, in powder, are dissolved in six gallons of boiling water, and forty gallons of cold water are added. The whole is well stirred with a stick, and the lamb is then immersed precisely in the same way as in the tobacco water. The remaining liquor containing this deadly poison, should be poured where no animal can go to it; and the dipping box, after

being well rinsed, should be put in a safe place and used for no other purpose. Arsenic is not poisonous to the hands if they are sound; and even if the skin should be a little broken, a couple of hours exposure to the above described solution would be attended with no danger. If large surfaces of the hand are denuded of skin, an injurious absorption of the arsenic might take place.

If the lambs of a breeding flock are properly dipped, but very few ticks will be found either on the old sheep or on the lambs at the next shearing. If killed in the same way on the succeeding year's lambs, they will generally be wholly exterminated from the flock; and if no ticky sheep are subsequently introduced into it, and it is kept in good order, two or three more years may elapse before another tick may be found in it.

When lambs have been suffered to go until winter without dipping, and are covered with ticks, arsenic boiled in water, an ounce to a gallon, is poured on them; but the Mountain Shepherd's Manual, which recommends this, adds:—

'In this method, however, several of the ticks escape by crawling to the extremities of the filaments.' The common mercurial ointment of the shops, mixed with seven parts of lard, is an effectual remedy. It is rubbed on the skin in furrows made by opening the wool, and should be most freely applied to the parts which are especially frequented by the insects, viz., the neck and brisket. Half an ounce of it may thus be used with entire safety on a common sized merino lamb, having the ordinary access to shelter, in any but exceedingly tempestuous or changeable weather; and this would be more than sufficient for the purpose. In England, where mercurial ointment is frequently used, it is believed to have a generally salutary effect on the skin and on the growth of the wool. Indeed, it is often applied for this express purpose, about the first of October, to lambs which were dipped at shearing, and which therefore, have no vermin on them. It is also applied to grown sheep for the same purposes, at the close of the coupling season—2 lbs. to 20 head—or 1 3-5 per head. An ounce would be sufficient on a grown Merino.

Water Fixings for Farmers.

A correspondent of the *Germantown Telegraph* says, "considering the small expense usually required to put up the necessary water fixtures, it is surprising that any farmer should be without them if he has a spring where he can obtain from three to six feet fall for a ram, or a stream of water with from five to ten feet fall to turn a wheel connected with a forcing pump. The cost is often much less than that of digging and walling a well, and placing a pump in it, and, besides, spring wa-

ter is usually softer than well water, and of course more desirable for household purposes.

The writer has had a hydraulic ram in operation for more than twenty years, with very little repair. It is worked by a single spring with about four feet fall, forcing the water one hundred yards up a hill to an elevation of forty-five feet. The reservoir in the second story of the house is simply an oak hogshead, charred inside and made for the purpose, costing a few dollars, and as sweet now as it was when the water was first introduced. The whole fixture is truly labor-saving."

Millet.

We think our farmers will do well to give more attention to raising millet. It is one of the best and most profitable hay crops we have. If cut when in full bloom, it is considered by good judges to be equal to the best timothy, while it yields a much heavier crop on the same land. If the seed be allowed to ripen, the quality of the hay is not quite as good, and it of course is more exhausted to the soil. But in the latter case the hay is still of good quality, and will be relished by all kinds of stock.

An excellent plan is, to plow the ground, and manure well, sow about the usual time for the spring grain, and cut about the middle of June. As soon as the crop is off, plow, manure, and sow as before. The second crop will have ample time to ripen its seed before the heavy frosts in the fall. By pursuing this plan, two heavy crops can be taken from the same land, and seed for next season secured. Two cuttings will give, on good corn land, at least four tons per acre of good hay. One peck of seed per acre will do, but if double that quantity be used, the hay will be finer, and therefore preferable for ordinary feeding. If sown thick, weeds stand no chance at all—the millet entirely covering and monopolizing the ground.

Forage crops will be worth looking after this year, and we advise our farmers readers to try some millet. It is easily raised, and is most certainly a cheap crop for feeding. Try a patch of it.—*Ploverman.*

Field Culture of Cabbage.

A correspondent of the *Country Gentleman* says, I am just preparing a piece of land for cabbage, as I raised a good crop last year with very little expense or extra trouble. First select a piece of rich loamy soil; manure thoroughly with cow or sheep manure; plow about ten fitches deep, and leave it until the first week in June or the middle will do; then plow again, but not deep; harrow it well, and mark it 3 feet each way. The first wet day take up the plants; get a boy to drop one in each hill; let a man follow with a setting-stick. Be sure to set them up straight, and pack the earth around the plants. In a week go through them with a hoe, and loosen the earth around the plants, and replace those that failed. In three or four weeks go through them with a cultivator, and hill them with the hoe. In August hoe again, and they will do until November, then they can be sold or fed to milk cows, and will produce more milk and butter than any other food. Cabbage will keep on the bare floor until New-Year. Those that I feed in spring, I bury in the lot and take them up as I want them. I feed them to both sheep and cows, and with good hay are the cheapest and best food they can get, as it will cost no more to raise an acre of cabbage than it will an acre of potatoes.

How to RAISE TURNIPS.—A. Dawson, of London, C. W. tells how he manages to get good crops of turnips, as follows:—"I plow my land in the fall. In the spring I draw on my manure at the rate of 25 loads to the acre, plow it in, drag it well, if lumpy, roll it, plow it again, drag it and roll it until it is as fine as a flower garden. Mark out the drills with a plow, about two inches deep; follow along and put in the seed with a drill, about two pounds to the acre. I always sow enough seed for the fly and myself too. After the seed is sown I cover with the drag, harrowing the same way as the drills run. I make the drills with a plow because we have nothing better here; but be sure to put your seed on the damp earth. I always sow the Improved Purple Top, and about the first week in June."

TURNIP FLY.—A correspondent of the *Colonial Farmer* says: A year or two ago, at an agricultural meeting, I was struck with a remark made by a gentleman present, to the effect that the surest method of preventing the ravages of the turnip-fly, was to apply a substance which would divert the attention of the fly from the plant, and he went on to say, that for such a purpose he had used Indian corn meal, which he sprinkled pretty freely along the rows. Incredible as this statement appeared to me to be, I was still willing to give it a trial, and last year applied the meal to several rows of my turnips. The rows thus treated were untouched by the fly, while those to which it had not been applied, were more or less destroyed. I believe in it, Mr. Editor, and am so well pleased, that I thought I would make the result known to my brother farmers.

HORTICULTURE.

A MICHIGAN NEW SEEDLING PEACH.

The *Niles Enquirer* and *St. Joseph Traveler*, published in Berrien county, which has become so famous for the cultivation of Peaches, each speak in a highly eulogistic manner of a Michigan new seedling peach, claiming it to be very hardy, productive, a strong grower, and of rich flavor and flesh. If it a new kind, and actually possesses the qualities claimed, it will prove a most valuable acquisition to Michigan and horticulture at large. The *Inquirer* says:

Our attention has been called to an article published recently in the *Traveler*, describing a new seedling peach, grown by George Parmelee, of Benton. From what we can learn, we judge that this new candidate for public favor is destined to revolutionize the peach growing section of our State. Hitherto only imported varieties have been propagated to any extent; but if, and there seems at present no doubt, this tree shall prove to be sufficiently hardy to withstand the frosts of this Northern region with certainty, and the fruit prove equal to the promise of last year's growth, hereafter the *Parmelee Peach* will command the attention of the peach-growers of the West, to the exclusion of every other variety. On the original tree, now growing in the midst of a peach orchard of over two thousand trees, there is at this time every indication of a full crop this season; while on all the other trees in the orchard, there will not probably be a peck of peaches.—The test of the frost of last winter was a very severe one, but this tree does not exhibit the least signs of having been affected thereby.

We also append the article of the *Traveler* in regard to this new seedling peach:

A Remarkable Peach Tree.

Last week we were shown through the extensive peach orchards of Mr. George Parmelee, on the lake shore, just north of this village. We believe Mr. Parmelee is a pioneer in the peach business here, having in 1849 planted the first trees with a view to growing that delicious fruit for the Chicago market. The difficulty of obtaining trees at that time was very great, he having obtained the first settings from Buffalo, N. Y.

Mr. P. now has 70 acres set in peach and apple trees, (mostly peach) and is still preparing to set more. But we propose to speak more particularly of a very remarkable tree found on his grounds—remarkable in the proof it has given of its extraordinary hardiness, and in the number of blossom buds with which it was covered when we visited it. The tree is a seedling, having sprung

from the pit of the "St. Joseph Yellow Rareripec." This last named variety has shown itself the most hardy of any heretofore, producing fruit when the Crawfords, and all other varieties were killed.

The tree in question stands in the immediate neighborhood of other trees of the original variety which bore last year on an average only a half a dozen peaches, while it produced a basket full. It is proper here to remark, that the trees are young, last year being their first bearing year.—The Rareripecs all have a very few blossoms on, but this seedling is loaded with them to an extent almost miraculous. The qualities of the peach which it bore last year we will give in the language of Mr. Parmelee:

"The color is a bright golden-yellow, with occasional dashes of red; shape much like the Old Mixon Free; size fully equal to it; flesh yellow, juicy, and sweet."

The tree has a very fine appearance, and branches in such a manner as not to be at all liable to split down when heavily laden with fruit. Mr. Parmelee proposes to propagate this variety as rapidly as possible, and will soon be prepared to furnish trees or buds to all who may wish for a tree that will resist perfectly the influence of storms, such as swept over the country the 1st of January, 1864.

The name of the gentleman on whose grounds this tree stands, is a sufficient guarantee against humbug or imposition.

CARE OF STRAWBERRIES.

We usually pass through our beds about this time with a fork hoe or potato digger, and loosen the surface of the soil and pick out all weeds. It is then a good plan to scatter a liberal quantity of well rotted manure among the vines or "hills."—After which mulch well—say one inch deep, with sawdust or tanbark or clean straw or hay. If any of the readers of this article should have an old bed in which the vines have run together so as to become a thick mat of plants spade under strips about one foot wide, leaving strips of plants about the same width. Work among these vines with a fork hoe—pick out all weeds and scatter a very liberal supply of well rotted manure among them, over which scatter the mulching.

To those who think they will not get as much fruit in this way as by leaving the whole mass of plants, I would advise to try the experiment on one part of their beds, and report the result, especially in the size of their fruit.

After the beds are through fruiting, spade over the ground, leaving narrow strips of plants—say 3 to 4 inches wide. Work well among these with the fork hoe—manure highly, and as the plants throw out "runners," train them along the edges

of the rows. Before fruiting season next year give them the same treatment as before described.

—A. M. PURDY, *South Bend, Ind.*

New Soil for Strawberries.

It is a great mistake to devote the same place of ground to strawberries several years in succession. As often as a new bed is made—as often as you re-set your plants—give them a fresh piece of ground to grow in. Strawberries seem to exhaust the ground of some element they need sooner than almost any other plant, and it is difficult to find a fertilizer that will supply the waste. It is not necessary to make a piece of ground on purpose for strawberries by the addition of manure, leaf-mold, ashes, salt, road scrapings, &c.; just set them in any part of your garden where the ground is moderately rich and where strawberries have not grown before, or at least not in some years, and they will be satisfied, and will do better than if pampered with a variety of artificial food. But be sure and move them often.

Water Your Strawberries.

When the fruit is forming, and especially when it has commenced to ripen, the beds should be plentifully watered once a day, at least. You need not be afraid of putting too much on; the more the better. It will repay the labor tenfold. We find that rather low, moist ground, not glaringly exposed to the sun, and mulched, is far to be preferred to high, exposed ground, without any protection, for growing strawberries. A little shade does not hurt strawberries, and a moist soil, artificially or naturally, is decidedly to be chosen. The best uniform crops we ever raised, or ever saw, were produced under such circumstances. If properly treated, there is no crop more certain than the strawberry, or easier to obtain. If neglected there is none that yields so unsatisfactorily.

JUNE THE TIME TO PRUNE FRUIT TREES.—E. D. Wright, in the *Genesee Farmer*, contends that June is the proper season to prune fruit trees, offering as the ground of his faith the following reasons, which we put in a condensed form:

1. A limb being cut off before the growing season, both wood and bark will dry and die back where cut is made. What it thus loses while waiting for the growing season must be made up by the growth of new wood when that season arrives; Nature undertakes to heal the wound by growing it over with this new wood, but much time is lost before it will grow up from the point where life still remains, between the bark and the wood, to the place where it would be if the cut were made in May or June, instead of February or March.

2. Where a limb is cut off before the growing season, and before or at the time of the spring flow of sap, the sap must come to the surface where cut, and there be evaporated or fermented, leaving the wood sour and lifeless, and liable soon to rot.

THE CONCORD GRAPE.

In the "Transactions of the Missouri State Horticultural Society for 1863," we find the following: Speaking of a small vineyard in that State.

The Concords produced the first-bearing year ten pounds to the vine—the thirty vines producing more than double the amount of the seventy Isabellas and Dianas. The Dianas produced about four pounds to the vine, Catawbas about the same, whilst the Isabellas were almost worthless from leaf blight. The second year the Concords produced about seventeen, Dianas fourteen, and Catawbas ten pounds per vine. The third, which is the present year, the Concords produced ten pounds—would have done as well as last year but for the rot, the Catawbas nearly as much, and the Dianas having overborne last year produced but little. Dianas and Catawba have both been troubled with leaf blight the present year, but the Diana is less affected than it was last year. Mr. Seymour would not hereafter plant Catawba or Isabella; would plant Diana for family use; it hangs well and keeps till Christmas. Would plant Crevelling, Hartford Prolific and Concord for market, and Norton's Virginia for wine.

Two vineyards of Mr. Geo. Husmann were visited. He is one of the most zealous cultivators, and has published an "Essay on the Culture of the Grape in the Great West." Mr. Husmann says the Concord, though a strong grower, must be short pruned. He shortens in like a peach tree, leaving two to five eyes on a branch, and greatly increasing the productive capacities of the vine. Many notes are made by the Committee on the varieties Mr. Husmann cultivates, but we have not space to copy them. The Concord is his favorite, 400 vines produced, in 3 years, layers and 2000 pounds grapes worth \$1483.

Mr. Poeschel approves of Mr. Husmann's view concerning the pruning of the Concord. A vine of this variety, pruned with long canes, produced only four or five bunches of fruit the present year, whilst another, pruned on the plan recommended by Mr. Husmann, yielded fourteen or fifteen pounds of grapes. Mr. Husmann thinks Norton's Virginia and Herbemont may need the same system.

Two hundred Concord vines, from cuttings put in the ground two years and four months before, yielded the present year \$180 worth of fruit.

WINE.—For the information of many who are planting for the purpose of making wines on a larger or smaller scale, we give a brief synopsis of the decisions of the committee on the quality of those wines made from grapes which can be grown and ripened in the Middle and Eastern States. The character of the Catawba and Norton's Virginia is known, but they are neither of them successfully raised north and east of Pennsylvania.

Concord—Vintage of 1863. Reported as follows:—

No. 1—Theodore Englemann, Mascoutah, Ills.

No. 2—C. Eisenmayer, " "

No. 3—William Poeschel, Hermann, Mo.

No. 4—Michael Poeschel, " "

No. 4, by Michael Poeschel, was unanimously selected by the Committee, as best. No. 1, by Theodore Englemann, as second. No. 3, by William Poeschel, as third. No. 2, although a fair wine, was injured, in the opinion of the Committee, by the must having been fermented on the husks of the grape, a treatment which should be particularly avoided with this grape.

The samples exhibited compared favorably with the best Catawba, and the exhibition of three such fine samples establish the Concord as a wine grape for the west, beyond controversy.

Delaware—Vintage of 1863. Reported as follows:—

Only one sample was exhibited, by Jacob Rommell, Hermann, Mo. An excellent wine, of delicate bouquet and great body, considered by the Committee the best wine exhibited in this class.

These were all of the class of white or light red wines.

Clinton. Reported as follows:—

No. 4—By Jacob Rommell, Hermann, Mo.; an excellent dark red wine, of good body and excellent flavor. Considered the best red wine on the table.

Nos. 1, 2, and 3—By Mr. McClure, very inferior; evidently made from unripened grapes.

Such is the condition of grape culture in Missouri and the new state of Illinois. It shows how important the subject of grape growing is, and the great interest it is destined to become to the cultivators of the country. There is no doubt we shall, ere long, supply light wines of a quality equal to those of the best French and German vineyards.

PROFITS OF SORGHUM AND WHEAT CULTURE.—Thomas Libby, a farmer of Davis county, Wisconsin, gives a statement of the comparative profit of wheat and sorghum culture in the *Practical Farmer*. He compares three acres of each on the same farm, though the wheat land was much better soil, and makes the net profit of the sorghum field \$38, and that of the wheat field \$9.50. He had 300 gallons of syrup, and harvested 45 bushels of wheat. The profits were three-fold in favor of the sorghum crop.

JUNE THE TIME OF PRUNING FRUIT TREES.

WHY SHOULD WE PRUNE?—In considering this question, we should remember that fruit and fruit trees have been brought to their present state of excellence by constant care and culture; that few, if any, of our best fruits were at first of much value. It is said that the peach, the most excellent of all, was only a bitter almond. The apple, when allowed to grow wild, has seldom produced good fruit. Culture has changed them to what they now are; culture and care should have no intermission, if we would attain success.

The knife—the pruning hook—has been a potent instrument in the hands of man in bringing about this refinement, and it becomes us to know *when* and *how* to use it.

Trees are of different habits. Some are inclined to grow to wood, and their tops present a thick mass of limbs, with very little fruit, and that of an inferior quality. Such should be thinned out and cut back in order to reduce their wood buds and throw the strength which tends to them into fruit buds. Others are too erect or upright in their habits, and may need cutting back to give them a more spreading head. Others are not well balanced, which fault may be corrected by pruning. There are other reasons *why* to prune; but they may more properly be considered under the head—

How to PRUNE.—The tree, as it comes from the nursery, should be pretty much robbed of its top, in order to retain an equilibrium between its power to furnish and its demand for nutriment—which power was necessarily impaired in transplanting.

The pruning should not be all made from the bottom upward, but the top must be cut back; so as to commence the formation of the head not higher than your shoulders. Three or four main limbs, on opposite sides, should be left as the foundation for the head of the tree. If more are left let them be taken out the next summer, in June. All limbs should be cut back at least one-half, and every cut should be commenced on the opposite side from the bud (even with its point) which you desire to continue as the prolongation of the limb. This bud then becomes the terminal bud. The knife should be drawn with a little slant upward, coming out a little above the bud. The terminal bud, as a general rule, should be on the outward side of the limb.

The tree will now need but little pruning until the third season, when you can begin to calculate upon the form it is inclined to take. If one side is disposed to outgrow the other and is heavier, thin it out and cut back rather close, while you cut back the other lightly. If disposed to be too

upright, cut them back heavily, bend and fasten them more horizontally, making an incision lengthwise on the upper side. *Calculate whether the limbs will be too thick together when they come to be large, and remove them while small.* Let this rule be constantly borne in mind and applied to practice, year after year, and you will avoid the necessity and the injury of cutting off large limbs. *Allow no surplus wood to grow, and no sap sprouts, to rob the fruit of that nourishment which it needs. Make the top open, so that the sun may penetrate.*

Crossed limbs and those that interfere must be cut out; also, thorny, scrubby and dormant limbs. Let your tree be so open that the limbs will not whip together and chafe by the wind. Use a fine saw, or some instrument that will cut smooth. Do not use an ax or a hatchet.

Every limb has a joint—(if I may be allowed so to call it)—an enlargement where it joins another. At the smallest point just above this take it off smooth and clean; do not allow it to mar and tear down the bark.

Prune at any time after the middle of May until the last of August. *Prune in June* and you will be satisfied that it is the best time.—E. D. WRIGHT, in *Genesee Farmer*.

THE CURRANT.

The culture of the currant, or, rather, the planting out of currant bushes in the garden, and allowing them to stand there, has been a custom all over the country from its early history. When this labor of *setting out* was once performed, if we take common practice as evidence, the whole work was done, and nothing remained but to gather the fruit in its season, or such portions of it as were left unconsumed by birds, and the matter went on until the next season of fruit gathering. Planted in fresh soils, their growth was liberal enough for a few years, and the fruit was of satisfactory size. As the bushes showed an ability to take a sort of care of themselves, no pruning system was adopted, except such as was given by the browsing of animals, that in winter had the liberty of trampling the garden grounds, "because they could not do much hurt there." Indeed, even this miserable system of pruning was, thanks to the hardness of the plants, found to be somewhat beneficial in its way, for it kept the growth restricted, thus enabling it to produce more fruit.

The row of currant bushes was usually set "by the fence" around the garden, and the roots were so closely placed that the plants formed a perfect mass of shrubbery. In winter, huge snow-drifts, in snowy regions, were found over this mass. These drifts gave a very good protection to both

root and branch; but when the spring came, and they melted away, they developed a very tangled mass. Many of the shoots, from the weight that had been lying over them, were bowed to the earth, never to rise again by their own strength. Other shoots were half recumbent, and so they might be seen in all parts, in all shapes and conditions. Those which suffered most, in many instances *died out*, thus introducing a system, though not a very judicious one, of pruning. As a matter sure to follow where such a course was tolerated, the stalks grew more and more feeble, the leaves prematurely fell from them, while the fruit, from exhaustion of the stalk, diminishes in size and flavor, and the old bushes were pronounced "used up." They now stood a very good chance of being abandoned to any fate that might follow. Sometimes, it was probably the case that new plantations were formed from the old; and then the new, in its turn, was left to work out for itself a similar destiny of ruin. The roots were left wholly uncared for. If the grass matted around them, it was thought of little consequence. It would have been thought a waste of manure to apply it to a currant bush, and a very great waste of time to have raked leaves and placed around them.

As fond as the masses are of currants, and as useful and necessary as they can be made in household economy, and as easily as they are grown and perfected, we are reluctant to believe that a course similar to the one we have described is tolerated by any one in the present age of fruit culture. Indeed, we would not suppose the thing possible, had we not, in our rambles a few days since, seen just such a mass of tangled material as the one we have above alluded to. We fear, then, that they may still be found too common every where. But why shall we speak of it, or try to point out a better way through the HORTICULTURIST? People who raise such currant bushes, do not take the HORTICULTURIST. We know that fact as well without asking, as we should if they said so under oath. Not only the currant bushes, but every thing about the garden, testify that they do not take that paper, or any other one devoted to rural improvement. They may take a story paper or a political one, because the children like to read stories, &c. It is there that we find the difficulty of reaching such people, when we wish to tell them how this rough, tangled mass of ill-looking brush can be renovated and made very beautiful, and produce fruit so improved in size and flavor, that when they see it laid side by side with the old product, they would never believe that both came from the same garden, if they did not know the fact. Yet, we hope something will throw what we have to say before

them, and they will try "just one bush," if no more, to see if we tell the truth.

The reader who has experience in horticulture will observe that we are not speaking now of setting out new plantations of the currant, or of their after management. The whole topic lies in the renovation of the old one; a plantation that perhaps somebody's grandfather or great-grandfather put out, away back towards "the days of the Revolution." A precious relic of by-gone days, and worthy to be preserved and made valuable.

The course of management is very simple, and can be soon told. The first requisites are a sharp knife, and an industrious hand to use it. With these, cut out all old and straggling shoots, and reduce the mass so that at most not more than four or five are left in what constituted what was called a bush at the time of planting. Let the shoots that are allowed to grow be young shoots, and straight, erect ones. Then, if my grass is matted around them, dig it up and destroy it. If weeds have sprung up there, annihilate them entirely. Spade or fork up the ground as best it can be done; and if manure is applied, it will pay good interest. But if manure is to valuable or too scarce, a coat of chip dung will do well, or what is better, gather up leaves from forest trees, and place them liberally around the roots. Many can do this, and accomplish the double object of getting them out of the way and into a place where they become available. The leaves are a good mulch, such as the currant loves, keeping the earth clean, light, and moist. They in due time become a valuable natural manure to the plant. The first season an improvement in the fruit, both in its size and flavor, will be evident but the matter must not stop so. In each successive spring the thinning-out process must be gone through with, and the mulching with leaves, the oftener the greater success. We have seen this course pursued with ample and astonishing success; and yet it is so cheap and so simple, that any one can raise improved fruit on old bushes, or bushes springing from old roots, by adopting it.—WILLIAM BACON, in *Horticulturist*.

The Currant Worm.

A correspondent in the *Country Gent.* says, I am in the habits of destroying the worm in this way: You will observe that his hold on the leaf is feeble, and by the slightest shake of the cane he falls to the ground, but soon climbs up again. I watch my currant bushes, and as soon as I discover him I go to the kitchen and get the cover of a wash boiler, which I hold in my left hand, upside down, under the bush, and with a little

stick a foot long gently tap the cane, and down rain the worms into the boiler cover, and as soon as I have shaken them all into the receiver I run to the stove, in which is a hot fire, and empty them into it, and they never climb up again. Perhaps some will fall outside the cover; I go again next day and serve all that remain in the same way, and I have no more trouble with them.

There is, however, a worm of a more formidable character that infests our currant canes here, and that is a thin white grub, which enters the cane at a bud, and then eats in and eats the pith of the cane, and so weakens it that as soon as the cane becomes loaded with leaves and fruit the cane breaks. I would be glad to know how to get rid of this grub. [This last mentioned grub has made its appearance in this part of Michigan—we find that the leaves are stunted on the cane containing it, such we immediately cut back beyond his course and burn them. This grub is most likely, we find, to enter at bruised buds or broken joints—it is well, therefore, to make a clean smooth cut off wherever bushes are damaged.]

AN OLD INDIAN APPLE ORCHARD.

The editor of the *Saginaw Valley Republican* has been rustivating among "mosquitoes, sundry fans, handkerchiefs, &c." (lucky fellow) up the Shiawassee River, and gives an interesting account of probably the oldest Apple Orchard in Michigan and "big rock," or Chesaning. He is among other things became familiar with flea-botomy, which often engrosses the attention of travelers in other parts of the world, out side of Saginaw Valley—it is a great study upon a small subject, and often so engrossing as to keep unprofessional minds occupied.

"When all the world is hushed in sweet repose," (bed-bugs, bull-frogs and fleas excepted.) He says:—We left St. Charles on Friday afternoon, and arrived at Chesaning in the evening, and took up our temporary abode at Goodale's Hotel. We felt weary and sleepy, and no wonder. At St. Charles the fleas had been quite too familiar, and the bed bugs evidently considered their premises invaded, and consequently showed us no mercy; but Goodale did not entertain this class of boarders, and we enjoyed a good night's repose.

The village of Chesaning has also improved somewhat within the past year, but we do not think it will ever be a very large place, although it has some natural advantages. It has a good water power and a very excellent farming country surrounding it, which will eventually make it a town of some importance. Some of the best, if not the best farms in the country are located on the banks of the Shiawassee River, in the

township of Chesaning. This locality was formerly one of the favorite resorts of the Indians in the days of "long ago." Here they raised their corn—held their councils of war—danced their war dances and smoked their pipes of peace. A few of the ancient landmarks still remain, but the most of them are blotted out forever. On the farm of George W. Chapman is still standing the "Indian Orchard"—a clump of apple trees, some of which are more than a foot in diameter. They are, however, fast going to decay, and they now bear but very little fruit. When these trees were planted cannot definitely be known. The only information which have ever been obtained was from an aged squaw who visited the spot some years ago. She had been absent many years, and returned once more to the scene of her youth. On viewing these trees the old squaw wept like a child. She hugged them as a mother would her darling child, and tarried many weary hours beneath their branches. On being interrogated as to the cause of her grief, she replied: "These trees were planted by my Indian when he was a boy." The old squaw was then nearly or quite eighty years of age, and she has been dead for several years.

Another curiosity which was held in reverence by the Indians is the big rock from which the township derives its name. (*Chesaning* signifies in Indian, "big rock.") This rock is located about three-fourths of a mile from the village, on land owned by John Rose. It is about 20 by 30 feet at the base, and rises above the surface of the ground about seven feet. It has several large fissures in it and is gradually falling to pieces. The rock is of very singular formation. It is considerably impregnated with iron, and bears some resemblance to the rocks of Lake Superior.

What makes it a greater curiosity is that no stone can be found in the immediate vicinity! It seems as if it had been dropped in its present location, or thrown from its place of formation by some great convulsion of nature. The Indians used to hold it in reverence as one of the works of the Great Spirit. [From the description and its metallic qualities, we of the Farmer should judge that this rock was one scapolite which had struck the earth at this spot. Many such are known to exist in different parts of the world, having been plunged through space during the actual knowledge of man and seen to strike.]

The Curculio and the Pea Bug.

A correspondent of the Country Gentleman, says:—On what does the curculio feed? I have seen him perforating the plum leaf on the under side, leaving a hole of the size of a small pin, entirely through the leaf. Perhaps the sprinkling

of lime on plum tree leaves renders them distasteful to the Turk.

I have noticed various acts of the Curculio—making his mark, putting in the egg—rising from the sheet, on which he had tumbled, to the height of 5 or 6 feet, and flying off in a bee line one hundred feet or more. The idea that he cannot rise to the branches of a tree from the ground, appears to me a great mistake.

Shaking and Jarring.—What sort of feet have these insects? One day I had a curculio in a common insect glass for observation. At length he fixed himself on the perpendicular side of the instrument, and no shaking or jarring would bring him down. This may illustrate the necessity of a sudden jar, taking the creature off his guard; while a shake only gives him notice to cling. Will Dr. Fitch tell us whether the curculio has claw feet, like the bee, or pump feet, like the fly? If the latter, we can easily see the need of a sudden and violent blow to land him.

The greater difficulty of perforating clayey soils, is the reason given by the late Mr. Downing for the less abundant haunts of the curculio in tenacious soils, compared with soils sandy and loose. This may be true as far as it goes. Another reason has appeared to me probable. The insect is easily drowned; and, soils retentive of water tend inevitably to his destruction. This may explain the statement made in respect to trees on one of the islands in a western river, the land being occasionally inundated; good fruit and no spoilers of it before maturity being the result.

PEA BUG.—Unlike the curculio, the pea bug will recover from almost any extent of drowning. I have found pretty strong and rather warm soap suds on washing days, the most effectual in quelling the pea depredator.

Destroy the Caterpillars!

Their name is legion, this spring, and they have begun their work early. Our people—we are sorry to say—do not yet appreciate the injury which they inflict upon the crops. This is evident in the culpable neglect which is almost everywhere seen, in the hundreds of filthy nests which are annually left undisturbed on the trees. An apple tree that is despoiled of its leaves this year, not only loses its growth and crop of fruit, but can scarcely recover its vigor again for two or three years to come. HARRIS says, "There are perhaps no insects which are so commonly and so universally destructive as caterpillars; they are inferior only to locusts in voracity, and equal or exceed them on their powers of increase, and in general are far more widely spread over vegetation." They are the young of moths and butterflies, and there are

several hundred species in the New England States. Their principal food is the leaves of plants, and consequently their injuries to vegetation are immense.

If their nests are attacked early in the morning,—or at any time when most of them are in the nest,—and they are young and the nest is not very firmly attached to the tree, it is not a discouraging labor to pass over an orchard of two or three acres. But if left until they are strong and the nest is well woven and tough, the labor will be one requiring much time and patience.

There are various ways of destroying them. A good mode is to take one of the spiral brushes made for the purpose, fix it to a light pole ten or twelve feet in length, dip the brush into a bucket of strong soap suds and twist it about in the nest. This will detach it from the tree, and wherever the suds fairly wets one of the caterpillars it will die. This is the cheapest, easiest and best way of destroying them, in our knowledge.

Some persons plow them off with gunpowder, others burn them,—but these modes are objectionable, as they more or less injure the tree. We hope that a general attack will be made upon the whole race, and that we may see cleaner fruit trees throughout the coming summer.—*N. Eng. Far.*

Injuries by Frost.

The severe weather with which the year commenced did serious damage to Western horticulture. The thermometer stood at 15 to 25 degrees below zero, while the ground was unfrozen, so sudden was the cold, and again, in less than three weeks, it marked 70 and over, in the shade. We have seen a large number of reports from independent observers, hundreds of miles apart, in Illinois, Iowa and Missouri, who agree in giving the Fahrenheit thermometer a range of about one hundred degrees during the month of January. The greatest damage appears to have occurred within or three hundred miles of the Mississippi River, between Memphis, Tenn., and Rock Island, Ill.; but only a small portion of the Western States escaped entirely, and some damage was done at the East. The region which offered the most contained vast numbers of orchards and vineyards, just ready to make returns for the years of care, labor and expense which have been bestowed upon them. The vines are frequently killed to the ground if not entirely destroyed—peach trees in a doubtful condition, and the more hardy trees more or less injured. The number of trees and vines destroyed is reckoned by millions, and, as many nurseries are involved in the common calamity, those who are willing to try again cannot readily replace their plants.

The Wheat crop has also suffered a great deal throughout these States and in the Eastern part of Michigan. And we learn that the thin husked White wheat is probably full 40 per cent. frozen out beyond resurrection at many points.

While this damage extends throughout the south eastern part of the State and the majority of other States, the Northern counties of this State near the shores of Lake Michigan, have suffered but very little, if any. And we have yet to learn of a single instance, where Jack Frost can claim a victory in Oseana County. The coldest weather we have had was 18 degrees below zero. Our wheat is in as good a condition as it has ever been heretofore, and our fruit-trees are all alive and doing well. It is from these facts, that we can safely state that this is a good fruit-growing country, and that the time is not far distant, when this County will produce as large fruit crops as some of the old settled counties.—*Oseana Times.*

ESSAY ON HEDGING.

The following Essay read before the Iowa Legislative Farmers' Club, and published in the *Iowa Homestead*, treats upon a subject interesting to the farmers of Michigan. A "live fence" is more ornamental and enduring than any other kind, and as lumber is not easily got, or is high-priced in some localities, it would be well for farmers to give more attention to hedging—its beauty is increased by age instead of being diminished. Mr. B. G. Hathaway, of Little Prairie Ronde, gave some good suggestions in the March No. of the *Farmer* as to what variety of the Thorn is best adapted to "live fence" culture in Michigan—it is known as the *Washington* or *Virginia Thorn*, this he has successfully grown upon his grounds, still the *Osga Orange* is more generally known, and is a favorite throughout the West for hedging:

BY HON. H. M. THOMPSON.

Gentlemen:—In compliance with a request of your Honorable body, I now present for your consideration a few crude remarks on the subject of fences; and in the first place it may be acceptable to you to give a brief description of the different kinds of fences common in such European countries as I am familiar with. In England, I have seen used as fencing plants—Holly, Crab Apple, Beech, Furze, and Hawthorn; I have also seen Spruce, Arbor Vitæ, Privet, and some other plants; but these were only used as screen fences or fences from cold winds, and consequently not coming within the scope of the subject now aimed at by me at this time.

The object desired, if I comprehend aright, is to get at some practicable mode of fencing our Iowa prairies, and to enable you to judge of that which is most applicable. I will occupy time, a brief space, in describing some of the modes of fencing adopted in England and Scotland. One of the oldest kinds of fence that I have seen, is what is called in those localities where it exists, "a sunk fence," and is constructed as follows: After the line where the fence is to be built is marked out, the earth is removed and laid on one side, somewhat after the manner of making a ditch fence, differing only in this—that the side to be fenced against, is sloped from a distance of 10 or 12, and in some instances, 15 or 16 feet back from where the actual fence is to stand; the side of the fence intended to turn stock is then faced with stone, and the earth thrown from the trench is packed against it to the height of 4 or 4½ feet, as may be desired. The remainder of the earth is then spread back, so as to form a gradual slope from the top of the stone to a distance corresponding to considerable extent, with the trench made on the outside; the object of this kind of fence has evidently been intended to turn only from one side, and for that purpose it would be both durable and effective; but the amount of labor necessary to construct a fence of this kind will, I think, preclude resort to this mode of fencing, and I would say that I have never seen a new fence of this kind made; fences of this description, (only built much higher,) are usually around Deer Parks, face side inwards. I suppose this arrangement was to allow the deer to jump into the inclosure and to preclude their jumping out. I would further add, that the stone work of this kind of fence was built without mortar.

The next kind of old fence is simply a stone wall built without mortar. I suppose you will all readily admit, that this mode of fencing is also inapplicable to our circumstances, or at least, to a very limited extent.

I will briefly describe to you another kind of fence found cheap and durable in Britain, but inapplicable here—it is this: There are many large tracts of land where the commonly used hedge plants (the Hawthorn) do not readily grow, or

main healthy, and in those districts where stone cannot be easily and cheaply obtained, many farmers have got their fields securely inclosed by erecting an earthen embankment, usually about two feet and half high, and about the same in breadth—both sides soddled up and sloping a little inwards towards the top—the top flat and composed of the best soil; along the centre of the top, the seeds of the plant called "Furze" is sown early in the spring. This plant is so thorny that in about three years (if it is kept clean of weeds) it will turn any kind of stock. Now I said that this plan was inapplicable to us, and as I have tried it myself and seen others try it in this State, I can speak with certainty, and the reason is this: Although the furze will grow here freely, the first sharp frosts kill it dead, dead! Next in order comes the Hawthorn, the great live fence plant, I may say of Europe, at least of Western Europe, and I do not exaggerate when I say that I have seen hundreds of miles of the most beautiful fences composed entirely of this plant. The various modes of planting of planting and cultivating this plant for fences, will now be in order, and the first and most important object is to procure plants in sufficient quantities to meet the inexhaustible demand made on nurserymen in this direction. It will here be proper to inform you that there is much difficulty in getting the seed to germinate. The process is this: The seed or haws are collected in large quantities in the fall, and placed in a heap—this heap must not be allowed to dry, and to prevent drying, it is usually made under a cover, or covered afterwards. It is turned over occasionally. The object to be gained is the separating of the fleshy pulp or covering from the pit or stone, immediately covering the seed, at the same time not allow the seed to become dry. This separation being obtained, the whole mass can be sown on clean land in rows, as is usually done with the seeds of the apple, or as has been done here with the Osage Orange, and cultivated till large enough to transplant into the permanent hedge row. In the moist climate of Britain, of which I more particularly speak, these hedge rows are very seldom made on the level ground, although it is occasionally done. The most common mode where the soil is good, is to make a bank of earth about eighteen inches high and two feet broad, or a little more. This is usually made by cutting the turf into sods, so as to have not more than two courses in height. These are set on their edges, on both sides where the fence is to be, so as to form the outsides of the fence, the insides being filled with the loose earth until the desired height is obtained, the young thorn plants being planted on the top along the middle thereof. As the other modes of constructing the embankments are unsuitable to either our soil or climate, I will not occupy your time in giving any description of any them. The hedge when planted, as I have just described, requires to be kept clear of weeds and it is usual to cut these hedges once in each year, so as to prevent the more vigorous plants from out-growing, and consequently overtaking the more tardy and less vigorous plants. I may here say that good farmers seldom let their fences grow high, as if allowed to do so for any length of time, the lower twigs become deprived of air and die—the consequence of which is, that the hedge becomes thin below, where it is most desirable—that the reverse should be the case.

One matter must be carefully attended to, and that is, keeping the surface for some distance on each side perfectly clear of weeds, and if possible, moist and mellow. The most effective method of accomplishing this, that I have seen tried, is by a thorough mulching with straw; this, if put on sufficiently thick, will, I am satisfied, answer both purposes—The grand trouble that I have seen in this respect, has been a nigardliness in putting on the straw, very few putting on straw sufficient to cover the ground (when moderately pressed down) to the depth of one inch. My experience is, that a sufficient amount of straw should be put on, that when pressed down with the fork would be about six inches deep, leaving it a little open at the top of the cutting so as to admit the air. I regret very much to have to add my testimony to the fact, that many, too many of our farmers, prefer burning their straw rather than use it for the purpose of assisting to protect

and ornament their farms by living and enduring fences. As a proof of the value of mulching, I would say, that three years ago this spring, a German living some five miles south from my house, on the road to Davenport, had an old ditch fence all overgrown with a tough, blue grass sod; he planted an Osage Orange fence, or rather the young plants to form a fence, by digging up the tough sod, just enough to get the young plants a sufficient depth in the ground; but by keeping them well mulched, he now has about eighty rods of most excellent Osage Orange fence, and if he could raise a good fence, set in such a place, (the top of an old ditch fence) and in such a condition, (the middle of blue grass sod) and succeed in getting a good fence, I think it will be very good ground, on which to establish the value of mulching, as a means of assisting in securing the growth of young plants or trees of all kinds.

There is a mode of live fence which I consider very applicable to a great portion of our State, and that is, a hedge made of Osage Orange. I have had a good deal of practical experience with this kind of fence, and may here remark that I believe this to be our most reliable and certain fence plant, or I should say hedge plant, where a hedge only is wanted. By a proper preparation of the soil and careful setting of the plants, and caring for them when planted, a most reliable and effective fence can be had.

Now as to the preparation of the soil: In the first place, as we are being troubled with weeds, while the plants are young, the land should be cultivated without any crop, or if cropped, it should be with something that will not encourage an accumulation of the seeds of weeds, such as potatoes, turnips, beets, &c. that could be hoed and kept clear of weeds during the summer previous to planting the hedge; in the fall before the frost is in, stake out the exact line where the fence is to stand, then take your plow and throw out three or four furrows, taking care to leave a deep, open furrow exactly where the fence is to stand. You will thus get a valuable auxiliary in preparing the soil for vigorously pushing the young plants ahead when the season arrives for their growth, in the pulverizing action of the atmosphere. As soon in the following spring as the ground is in good order for working plow three or four furrows on each side towards the line, marked out for the fence; it ought to be not less than eight feet wide, (ten is better,) level the center with a hand rake and dibble the plants in till the yellow bark at the collar is at least an inch below the surface. This is necessary to prevent the frost from heaving them out the following winter. If they are carefully planted as above directed immediately after the ground is prepared, and before it has had time to dry, and the soil tramped firm on each side of the plants by the person planting as he goes along, they will not need any further attention except to keep the weeds down until fall; but should the weather be dry at the time of planting, I think it is good practice to mud the roots well with some kind of stimulating compost. I think it is very injurious to the Osage to cultivate it after the first of July, unless late weeds grow up among it to the exclusion of the air, and if that should be the case they should be pulled out by hand. When the fall comes, the first year after planting, take a plow and throw a heavy furrow or two, or even more, towards the fence on each side, so that a little of the loose earth will roll in about the roots of the young plants to the depth of about two inches, and unless you caused a very active growth till late in the season your fence may be considered safe. The first cutting should now be done, and upon this cutting depends, in a great measure, the success of your fence. If you have been careful to draw the earth about the plant to the depth of two inches, you may, while the ground is hard frozen, take a sharp hoe and cut them off level with the ground; and when the ground gets in good working order in the spring, draw the earth back into the furrows, so that the plants will stand about the same as the previous summer, and should any of them have failed to grow, it will be necessary to fill up their places with strong, vigorous plants; but where one plant only is wanting and if good strong healthy plants are not at hand, the vacancy may be filled by a layer.

It has been recommended by some to cut the Osage Orange about mid-summer. I prefer cutting only in the winter, or so late in fall, that a second growth will not take place before winter overtakes it.—This latter practice is by many considered best for a young hedge, as it has a tendency to cause the young wood to ripen better, and consequently abler to withstand our severe winters.—These cuttings are absolutely necessary to enable the weakly plants to keep their place along side of those of more vigorous growth. I would state however, that with those who have the time to spare at the proper season, a cutting or fore-shortening when the young shoots are about fifteen inches high, which will probably be about the tenth of July, as the season is early or later, will make a fence sooner, if it is done understandingly. The object of this is to check the vigor of the shoots for a few days and cause the young wood to ripen. This obtained, numerous side shoots will be thrown out, and if this trimming or cutting is properly done, a hedge fit to turn stock may be had at least one year sooner. The trimming of an Osage Orange hedge should never be flat on the top, for if it is merely cut across the top, it has a tendency to spread out just below where the cutting is made and to become thin near the bottom. The proper way is to commence in the second year by cutting, so as to leave the hedge nearly in the form of a very short, dumpy wedge, set upright on its thick end.—There is one thing that ought to be carefully watched, if it is intended to cut in summer, and that is, not to let it get too high, for if much wood has to be taken off, the check may be too severe, and your after-growth be puny as to be worthless.

If gophers or squirrels are plenty in the neighborhood, they ought to be exterminated, as they are very destructive to the roots of the young Osage Orange. This may be done by trapping or poisoning—the latter course is preferred by many very intelligent men, and said to be very successful. My course has been to trap.

Where an Osage Orange fence is calculated as a barrier against the encroachments of large animals only, small gaps may be stopped by bending the stems of the nearest plants on each side of the gap, till they will cross each other at the height of about two feet from the ground, and tying them loosely in that position, keeping them so for a year, or until they have a year's young wood. Grown in that position, they will then retain their bended form, and will in two years, be sufficient to turn any ordinary stock. It is best to do this bending during open weather in the winter season, or at least before the sap commences to flow in the spring so as to avoid any partial separation of the bark from the wood, which not infrequently takes place when young shoots are bent during the period of the flow of the sap.

The further treatment of the Osage Orange must be left to the good judgment of the parties who endeavor to grow a living and enduring barrier to protect the fruit of their industry. Suffice it to say, that allowing a live fence to grow to any great height is generally injurious to it, owing to the tendency (as in many other cases) of the strong to over ride the weak.

So much for the Osage Orange; I believe no one who has seen it honestly and intelligently tried, has any doubts of its value as a plant adapted to our wants in fencing our extensive and beautiful prairies. But under our present circumstances how are we to procure the plants? It is admitted on all hands that only a very limited supply of plants can be obtained for some years to come, and under these circumstances it will be prudent to look around for something else adapted to the purpose, and I believe we have that growing in our midst, (I allude to a variety of the native Hawthorn) and as far as I am aware, it is found in greater or less abundance in nearly all parts of the State. I have seen it frequently in the woods around the city of Des Moines. I hope that I will not be understood to mean any or all the different varieties of the Hawthorn found in our State, for there are several. I am sorry to add that I am not botanist enough to be able to inform you of the proper name of this variety. Some of our native Hawthorns are almost *pointless*, (thornless) as a hedge plant, and from their tendency to grow to a small tree, I conclude are

not adapted to the purpose; but there is one of those varieties, and I am now speaking from experience, that I believe bids fair to rival the Osage Orange, and to surpass it in the northern part of the State. The obstacle heretofore in the way has been the procuring of plants, caused by the deficiency in getting the seed to germinate. It may not be out of place to inform you at this stage of proceedings, that I once had two bushels of the Hawes or fruit of this variety gathered; I sowed them in the fall, in rows with a great deal of care and just as they came from the parent tree or bush, but instead of having a fine crop of young plants in the spring I had to wait five years before I saw a single plant, and the ground having in the mean time been plowed, I lost so much of the seed that I did not consider the rest worth saving, but this was at a time when the Osage Orange plants were plenty and cheap. The variety of thorn that I allude to is more inclined to form a bush six or eight feet high, is indigenous to our soil and therefore perfectly hardy, and from its numerous sharp thorns and disposition to grow thick and bushy when cut while sound, I believe it to be peculiarly well adapted to our wants. As a hedge plant, it possesses all the qualifications of the English Hedge Thorn, and in some points is superior, at least, for our purpose. I have a few rods of hedge of our native plants, and a part of it is this kind of thorn, and although it does not grow so rapidly as the Osage yet, when we consider that it will not be so expensive in requiring to be trimmed annually, I believe that in the end it will make both as good and as cheap a fence as the Osage, and by following the directions given at the commencement of this article, I am satisfied that the plants can be soon procured in sufficient quantities to satisfy all demands. To such as may not be able to examine the specimen of thorn I now present to you, I will endeavor to describe it.—It grows chiefly on high ground; the young shoots are of a bright, brown color near the points, the bark of the older wood is white, the leaf is long and narrow and of a rich, bright, glossy green, as shining as if it had been varnished.

Fences may be made from the Crab Apple and Buckthorn; but from my experience of both, I would give the preference to the Hawthorn above described—and as I have now drawn out this article to a much greater length than I at first anticipated, I will not weary your patience further, hoping that my suggestions may be of some benefit to my brother farmers throughout the State. I thank you gentlemen, for your courtesy.

Further Experience with Hedges.

From the report of the American Institute Farmers' Club we take the following: "Mr. Townsend gave his experience with hedges, and earnestly advocated the white English Hawthorn. He has a hedge of this kind upon his farm, near Skaneateles, which is over forty years old, and is a perfect fence against all kinds of farm stock. He keeps it trimmed to about four high, except where it is used as a screen along an orchard it grows twelve feet high. Trees that are grown singly in a field often attain a height of 25 feet, and produce a peck of seed, which if properly treated, will afford from 10,000 plants. To get the seed ready for planting in the spring, it is mixed with sand where it will freeze and thaw during the winter, or kept in barrels in the cellar, where the pulp rots, and can be easily washed from the seed. Great care is necessary in planting to keep the birds and chickens from the seed-bed, and frost from the young plants which are very tender. In his section this thorn is not subject to blight to any great extent, and is easily cured by sprinkling with powdered lime. Blight sometimes destroys pink hawthorn hedges, and that is perhaps one of the causes of prejudice against them. A good many farmers in my section are planting new hedges. The plant is set at one year old, cutting the tops off near the ground, fifty plants to a rod in a single row, the ground being prepared as it would be for a corn crop. The next season the plants are cut one inch above the first cut, and afterward they must be kept properly trimmed every year to make a good hedge.

THE MICHIGAN FARMER.

DETROIT, JUNE, 1864.

R. F. JOHNSTONE, Editor.
WILLIAM S. BOND, Assistant Editor.

REGULAR CONTRIBUTORS.

T. T. LYONS, Plymouth.
WILLIAM R. SCHUYLER, Marshall.
Rev. B. McCULLOUGH, Walled Lake.
E. WILLARD, Ida.
CHARLES BOYNTON HOWELL, University of Michigan.
M. FREEMAN, Schoolcraft.

All Business Communications in regard to Subscriptions or Advertising should be addressed directly to BOND & SNYDER, Publishers of the Michigan Farmer, Detroit in order to ensure immediate attention.

TO POSTMASTERS.

We often receive returned papers, with merely the name of the subscriber upon them, and not the town, in such cases it is difficult to find them, as we are obliged to go over 200 pages of names. Will they please to add the name of the Post Office.

Postmasters are responsible for the subscription of a newspaper or magazine, as long as they allow it to be received at their office, after it is uncalled for, or refused by the person to whom it is directed. The Postmaster General requires that a written note shall be sent to every publisher, that his paper of works lie dead in that office."

MEETING OF THE FARMERS AND MECHANICS ASSOCIATION.

Interesting Discussion on Farm Machinery, Wool, &c.—The "Michigan Farmer" recommended to Every Member.

The Farmers and Mechanics of the following counties, viz., Livingston, Ingham, Jackson and Washtenaw, have formed an association in which they can discuss the different subjects that seem of most interest and importance to the agricultural community. They hold monthly meetings, and their last meeting was held at Pinckney, Livingston county, June 4th. The society already numbers two hundred and fifty members, and is growing in interest with each monthly meeting. Thus associated, it is becoming a power in the State. Two hundred and fifty intelligent, practical farmers associated together, knowing their interests and having the spirit to maintain them, can accomplish much towards furthering the cause in which they are engaged. The time is past when the great productive and agricultural classes as to be the menials and hirelings of shysters and stockjobbers. However it may be elsewhere, the farmers of this State, as a class, have long since ceased to be dependent upon any other class, in any other sense than as we all are mutually dependent upon each other in a limited degree. They are no longer at the mercy of the buyer. Knowing the value of a pound of wool, and a bushel of wheat, as a general thing they keep that pound of wool or that bushel of wheat

until it brings its real market value—something approximating to what it is actually worth to the consumer and the manufacturer. More than this they have no right to demand. More than this, I do not believe they would as a general thing ask. It is not from the farmers that monopolies spring. These need not be found from farmers who combine and associate together for mutual assistance and protection.

REGULAR MONTHLY MEETINGS.

The regular monthly meeting of the association named above was held in Pinckney. Mr. Samuel Wilson, of Livingston county, President of the Association, and Mr. C. M. Wood, of the same county, is the Secretary. The minutes of the last meeting were read by the Secretary; also, a letter from the Secretary of the State Agricultural Society, in reply to a letter addressed to the President of the Society in relation to calling a mass convention of the wool growers of the State.

DISCUSSION ON MOWERS.

The report of the committee appointed to select a piece of ground for the trial of mowers was called for, whereupon an interesting and quite lengthy discussion ensued upon the different kinds of mowers now in use, and kindred topics.

Mr. Wilson thought that it was necessary to select the ground at once, so that sufficient notice could be given that all might be present to judge for themselves as to the merits of the respective machines, and thus accomplish the objects the association had in view in getting up the match.

Dr. Hays saw difficulty in fixing the time, at any very lengthy period before the trial was to take place, as no one would be able to tell three weeks beforehand just the day he would be willing to have his grass cut. Clover is now pretty generally setting, and there is a prospect of its being fit to cut before a great while; but if heavy showers should intervene, it would not ripen so soon.

Mr. Whitcomb wanted to know whether the trial was to be confined to clover, and whether other grass was not to be included.

Dr. Hays supposed it referred to early haying, and that it would consequently apply to clover. If we waited till timothy would do to cut, the season for clover cutting would be passed, and we would consequently be deprived of very many of the advantages, for this season at least, to be derived from the contemplated trial of the mowers.

Mr. Wilson presumed they might find clover field sufficiently mixed with timothy or June grass to accomplish the objects.

A member suggested that it would be more difficult to find a field without than with June grass.

Mr. Coleman stated that he had a field of clover from fourteen to sixteen acres, which he would agree to have cut on the 25th of June, if the committee would accept of the same. It lies about three miles from the village of Pinckney, and the ground is little rough.

Mr. Farnham felt the necessity of giving due notice of the time and place of the trial. It interested not simply the manufacturers of mowers and reapers, not simply the committee, nor members of the association only, but farmers generally. He moved to amend the resolution so as to give the committee discretionary power both as to the place and time of having the trial, which was carried.

Mr. Hartsuff wanted to know whether the committee contemplated selecting a piece of marsh for trial also as well as clover. There was a great difference, he said, in machines, in the amount and quality of the work, depending upon the nature of the grass. Some would not work well on marsh. It was important to the farmers of Michigan to have machines that would do good work on marsh.

Mr. Webb thought the marsh was got up to give a fair trial to mowers upon good ground.—He should offer a machine, but he would not put it on marsh.

Quite a discussion then ensued upon the merits of the respective mowers. Mr. Peters said he had seen the Buckeye cut heavy marsh that would yield two and a half tons per acre. Similar claims were made for the Ball machine. Mr. Hartsuff had used the Ball machine in mowing marsh, and the only difficulty he had experienced was in having the hay roll up under the machine. To remedy this difficulty he turned the machine over and placed sheet iron upon it, which prevented any difficulty of the kind. The marsh that he had mowed was very boggy.

Mr. Whitcomb said he had tried the Manny Mower and it worked well on marsh.

It was finally agreed that the trial should take place on the 21st inst., upon a piece of ground selected about one mile from the village of Pinckney.

On motion of Mr. Peters, a resolution was adopted requesting every member of the society to subscribe for the *Michigan Farmer*.

The subject of preparing wool for the market, and upon the inquiry whether or no sheep should be washed, enlisted considerable discussion. The Association then took up in detail the discussion of

THE WOOL QUESTION.

Mr. Hartsuff wanted to ascertain the views of members as to the price of wool, what price they would be willing to take, and what they intended to ask.

Mr. Webb said his object in desiring a mass convention of the wool growers of the State was to form associations, which should buy up the little amounts of wool that the small farmers might be obliged to sell, so as to keep the wool in the hands of the farmers themselves till such a time as they should receive a fair market value for the same. In reply to a question, he said he would take 75c. for his wool, and would not take less.—By combined effort of this kind, the association had reduced the price of plaster one dollar per ton, and had saved the farmers of the counties represented by this association several thousand dollars. A mass convention of the wool growers of the State he thought could accomplish similar result by similar action on the wool question.

Mr. Hartsuff thought from all the information he could get, wool must rule at high figures.—With the present high price of all woolen goods, the probable action of Congress in fixing a higher rate of tariff on imported wool, and the rates of gold, he thought that farmers might look with reason to higher prices.

Mr. Wilson thought the association should act unitedly on the wool question. We do not want more than our wool is really actually worth.—This belongs to us, and we need it. Our wheat crop is a failure, almost, in this (Livingston) county, and we are obliged to look to our wool as our principal resource.

Mr. Coleman contended that the laws of trade would govern the price of wool. Not one half of the State, nor all the State, could control the market. We must submit to the laws of trade, they being higher than we, and beyond our control.

Mr. Noble wanted to inquire what is the real value of wool? What does it cost the farmer per pound? In deciding upon a price that we can justly and fairly ask, we should first ascertain the cost of our wool. He then gave some practical and valuable suggestions with regard to preparing wool for market. Even a good fleece of wool, tied up with tag locks dangling on the fleece, would look very much like a poor piece.—Farmers should use neat, white twine, and exert themselves to make their wool make as fine an appearance in market as possible, and try to establish a reputation as producers of good wool.—Mr. Wilson in reply to the inquiry, what is the value of our wool, thought it was worth just what its value was the manufacturer, less transportation. It is the middle men, the hucksters, the men buying on a heavy commission, that comes out of the wool growers, who stand in the way of the producer and the manufacturer, that we want to get rid of. We do not need their services. If we can concentrate our wool, the

1st, L. J. Thompson, Ewe, wt of car 73 lbs, wool 10 lbs 12 oz.
dtp. and \$8 00.
2d, L. J. Thompson, Ewe, weight car 65 lbs, wool 9 lbs 7 oz,
\$6 00.

3d, Bani Bishop, Ewe, weight carcass 64 lbs, wool, 9 lbs 7 oz \$4.00.

B. Bishop, Ewe, wt car 70 lbs, wool 8 lbs 6 oz.

A. Hewitt, Ewe, wt car 89 lbs, wool 10 lbs 13 oz.

EWES 1 YEAR OLD.

1st, L. J. Thompson, Ewe, wt car 88½ lbs, wool 7 lbs 6 oz, dip, and \$6.00.

2d, Henry Huff, Ewe, weight carcass 56 lbs, wool 9 lbs 10 oz.

3d, A. Kenyon, Ewe, weight carcass 64 lbs, wool, 10 lbs, 12 oz, \$2.00.

A. Hewitt, Ewe, 1 yr, wt of car 56 lbs, wool, 9 lbs 12 oz.

The Committee on Shearing report as follows: Best Shearer, Wm. Moore, Selpio, dip, and \$3.00. Clipped 20 lbs 8 oz wool in 53 minutes.

2d best, Wm. Press, Quincy, \$2.00. Clipped 16 lbs 8 oz, in 67 minutes.

3d best, N. Fish, Wheatland, \$1.00. Clipped 15 lbs 15 oz in 73 minutes.

Best machine for folding and packing wool, Henry Huff, Fayette, dip, and \$2.00.

The premiums will be paid by the undersigned at the Post Office in Hillsdale, or sent by mail to the persons entitled to the same, by their sending me a written order therefor.

F. M. HOLLOWAY, Sec'y.

Hillsdale, May 31st, 1864.

Among the visitors were those of the most prominent Wool Growers in the State. Hon. Mr. Slocum of Wayne; Mr. Arnold, of St. Joseph; F. Smith, Jas Clizbee, A. Nichols, W. J. Barnes, J. B. Salisbury, Wm. Joseph and others of Branch county, some of whom exhibited No. 1 stock—and in fact the entire stock on exhibition would class second to none in the eastern or western States.

The result of the competition, although spirited, passed off satisfactory to all concerned.

Annual Fair of the Romeo Stock Association.

The annual Fair of the Romeo Stock Association began on Wednesday, June 1st, according to public notice. The weather was unfavorable on account of the rain of the preceding night, but still the officers were at their posts, and entries were rapidly made. Towards noon there was talk among some of the Committee of postponing the proceedings till Thursday morning, but that was overruled, and at 1 P. M. the work commenced according to programme. The attendance this day was not large. Excellent stock was on the ground, and quite a competition was manifest among the farmers.

THURSDAY, JUNE 2d.

The business of the Association began a little before 9 A. M. and soon the people began to crowd in. The air was cool and bracing and the weather favorable, and as class after class was called and tested, more and more interest was manifested by the Farmers and Stock producers who were present. Excellent trotting was performed by the horses in most of the classes, which was witnessed by a large and intelligent assembly of the farmers of Macomb and adjoining counties. I here give a list of the premiums awarded:

CLASS I.

1st premium, 1 year old L. D. Owen, Romeo, \$4.

1st premium, 2 years old, L. Thorp, Rochester, \$6.

1st premium 8 years old, Nathan H. Lee, Bay, \$10.

CLASS II.

1st premium, Daniel Grant, Memphis, \$10.

CLASS III.

1st premium, 5 years old and over, Geo. Bloomburg, Birmingham, \$25.

1st premium, 4 years old and under, Calvin Green, Troy, \$15.

2d premium, Chas Dissenberg, Utica, \$8.

CLASS IV.

1st premium, C. A. Smolk, Detroit, \$25.

2d premium, John Demase, Detroit, \$15.

CLASS V.

1st premium, Neil Grey, Jr. Romeo, \$15.

2d premium, Wm. Todd, Auburn, \$8.

CLASS VI.

1st premium, James M. Thornington, Romeo, \$8.

2d premium, Geo. Cooper, Pontiac, \$4.

1st premium, best single, Calvin Green, Detroit, \$6.

2d premium, Chas Ulrick, Mt. Clemens, \$4.

CLASS VII.

E. R. King, Pontiac, \$25.

CLASS VIII.

1st premium, John Way, Detroit, \$15.

2d premium, John Henderson, Pontiac, \$10.

CLASS IX.

1st premium, Charles A. Smith, Lady Woodlong, Detroit, \$100.

2d and 3d premiums not awarded. One of the competitors ruled out for foul driving.

Black Bashaw was withdrawn after the fifth heat. The best trotting was by Lady Woodlong, 2:47½.

The Fair of the Stock Association was a success; the receipts were nearly \$500. Not an accident occurred to mar the interest, and not an intoxicated person was observed on the ground.

Washtenaw County Association.

Annual Meeting for the improvement of the breed of Horses.

At the annual meeting of the above Association, the following persons were elected officers for the ensuing year:

President—Smith Hotsford, Ann Arbor.

Vice Presidents—R. S. Smith, Ann Arbor; A. M. Noble, Ypsilanti; F. E. Walker, Salem; H. J. Miller, Saline.

Treasurer—L. S. Pierson, Ann Arbor.

Secretary—M. A. Goodrich, Ann Arbor.

Superintendent—Byron Green, Ann Arbor.

Ex. Committee—F. Hooper, Ann Arbor; John I. Thompson, Ann Arbor; John Dale, Ann Arbor; Byron Green, Ann Arbor.

On motion it was resolved, 1st, That the annual meeting of the Association for the exhibition of Horses, for the year 1864, be held on Friday, Saturday, and Monday, 1st, 2d, and 4th days of July next, on the Fair Grounds in the City of Ann Arbor.

2d, That the sum of six hundred dollars is hereby appropriated to be offered as premiums to be contested for at said annual meeting, and that said premiums be offered by and under the direction of the Executive Committee.

3rd, That the nett proceeds of the Exhibition be appropriated for the relief of Michigan sick and wounded soldiers.

S. BOTSFOORD, Pres't.

M. H. GOODRICH, Secretary.
Ann Arbor, May 31st, 1864.

FACTS FOR FARMERS.

Tomatoes are easily grown, produce bountifully, and make excellent preserves and catsup. Being also healthy and nutritious food.

Toads are the best protection of cabbage against lice, and all who have this lasting and desirable vegetable planted to any extent, should procure toads and turn them into the patch, they destroy other numerous troublesome insects.

Young chickens are excellent protectors of squash and melon vines; they are busy foragers examining every leaf minutely and picking off the destructive striped bug, &c. Secure the hen in a small movable coop and set it among your melons and squashes, and you will secure a good crop.

Two or three half grown ducks are useful in gardens where crawfish, snails, slugs and cut-worms are troublesome. Turkeys are of great use in a tobacco field; being tall and active they destroy great numbers of the voracious tobacco-worm. Plants, when drooping, are revived by a few grains of camphor.

Pears are said to be much improved by grafting upon the mountain ash. A tablespoonful of plaster in each hill of corn or potatoes is a great protector against cut-worms and rot, besides being a powerful fertilizer.

Sulphur is valuable in preserving grapes, currants and gooseberries from insects. Black sulphur, pulverized and sprinkled in the nest and feathers, will keep hens, chickens and other fowls free from lice; mixed with lard it proves a good remedy for the same on animals.

In feeding corn, sixty pounds ground goes as far as one hundred pounds in the kernel—a saving of nearly one-half.

Lard never spoils in hot weather, if it is well cooked in trying it out.

Cornmeal should never be ground very fine—it injures the richness of it.

Turnips of small size have double the nutritious matter that large ones have.

Rotabaga is the only root that increases in nutritious qualities as it increases in size.

Sweet olive oil is said to be a certain cure for the bite of a rattlesnake. Apply it internally and externally. It will also cure bee stings and spider bites, if applied immediately.

Rats and other vermin are kept away from grain by a sprinkling of garlic when packing the sheaves.

Money skillfully expended in draining land will be returned with ample interest.

To cure scratches on a horse, wash the legs with soapuds and then with beef brine. Two or three applications will cure in the worst cases.

Timber cut in the spring, and exposed to the weather with the bark on, decays much sooner than if cut in the fall.

It costs no more to raise a colt worth \$150 at four years old, than it does one worth \$50—the same applies to all stock-raising by farmers, who too often fail to secure good breeding animals, because the first cost appears too high.

By husbanding your too often wasted fertilizers, such as swamp muck, dead leaves, barnyard fluids and house slops, and keeping up a good compost heap, you will increase your crops two fold.

Let every reader of the *Michigan Farmer* remember these facts and they will "PUT MONEY IN HIS POCKET."

JUNE—FIELD WORK.

The summer has come. June with its roses—with its chaplets of flowers, again cheers and gladdens our hearts. But we have no time to dwell upon the romance of the season, on account of the numerous duties of the field. The plow and the cultivator, the spade and the hoe, the cradle and the scythe, and the rake and the fork, and the wagon loaded with "new mown hay," all emblemize the pleasant and happy month of June.

The flocks of sheep and herds of neat cattle banquet in the green and fresh pastures; the tall wheat, rye and grass wave in the breezes; and the rank leaves of the luxuriant corn rustle in the wind, like the dry leaves in the last days of autumn.

CULTIVATING INDIAN CORN.

and other hoed crops, will occur among the most important labors of June. And as a large number of our most skillful laborers have gone to defend our corn fields instead of cultivating them, the unskilled at home need a little instruction, in order to do the work well.

Let the proprietor take the horse and cultivator into his own hands, and let the boy or unskilled workman, walk by the side for a few rows and see how everything is performed. Show him just how long to have his lines and how to adjust

them around his body, so that he can guide the horse without worrying him, entirely across the field, without touching the lines with his hands. Show him how to hold and handle the cultivator, in order to loosen up the soil most effectually;—and how to cover up up the greatest amount of grass near the hills, by throwing the mellow earth near the hills with the cultivator. When the corn is well cultivated—unless there are a great many thistles—one hand can keep up with the cultivator in hoeing.

In some of the Western States, where two-horse cultivators are used, and the driver rides on the cultivator, the exercise of much skill will be necessary in driving just right; and in adjusting the cultivators to run just deep enough; and to cut just wide enough to do the work well.

Our raw hands and boys need much instruction concerning a great many things. They need some one to think for them; and then, to take hold, occasionally, and show them how to do it well.

They need to be instructed how to turn the horse, or horses, around at the end of the rows, so as to not to break down enough corn to more than pay for their wages.

RAISING JUNE TURNIPS.

Those who have not been accustomed to raise turnips in years past, should try their skill at raising a few. I have raised turnips for two seasons past, in the following manner:

I selected a few square rods of grass ground and plowed it eight inches deep at a time, when the soil was just wet enough to pulverize well, and put the seed in drills two feet apart as soon as practical after plowing. I sowed the yellow globe kind. After they become large enough to transplant, they are thinned out to eight inches apart, and plants were set in vacant places.

I applied no manure, as the soil was in a good state of fertility. And if there were any better turnips in "Old Cayuga," I did not meet with them. In the case the soil was not rich enough to produce three tons of hay per acre, a good dressing of manure should be to make a few barrels of good liquid manure, and sprinkle the rows at sundown, the same day that the seed was sowed. Beets and parsnips may be raised in the same way with good success. But such roots need a rich soil, or fertilizers of some kind applied, to stimulate the growth of the young plants.

BEANS AMONG INDIAN CORN.

Sometimes the cut-worm, and sometimes the wire-worm, will destroy many hills of Indian corn, even after it had grown a foot high or more. In all such vacant places let every man have a few early white beans to plant when he is hoeing. Three hills of beans may be planted where one

hill of corn may be missing. I have known farmers to drill in a row of beans with a horse-drill, between the rows of corn, and to have a good crop when the corn was not very large. But when the corn was large, it would not pay to put in the beans, as they would be shaded too much to ripen before frost might destroy them.

MANURE GROWING CROPS.

Sometimes, during this month, there are several days of rainy weather, when laborers cannot do anything to good advantage on the farm. At such time growing corn and potatoes may receive a dressing of wood ashes, plaster, or gypsum and lime, spread around the hills. Or ground bone or superphosphate, or guano, or hen manure, or liquid manure applied to each hill. A pint of good liquid manure applied to the soil of each hill—not to the leaves—will pay well. But it should always be applied in cloudy weather, and never when the sun shines.

CUTTING WEEDS.

The very best time in the season to cut noxious weeds—the time when it will injure them the most—is when the panicles, heads, or buds begin to form. If horse dock, pig weed, and Canada thistles be mowed close at this stage of their growth, it will hurt them so severely that they will not recover until late in the summer. And if they be cut again, as soon as they begin to form seed buds, they will be feeble and will not pick up much the next season.

Bull thistles, which often occupy a large share of the ground in pastures, should be cut off with sharp, broad hoes, about two inches below the surface of the soil. Then the water will fill the depression made with the hoe, and soak into the roots and destroy them.

If they are mowed off, they will continue to grow and go to seed. They will flourish, it is true, only this year, as they are biennials. But the object is to prevent their seeding, and to raise good grass where they would grow.

Call out all hands—boys and girls too—on a wet day, and they may all be cut in a few hours.

Let horsedock be served in the same manner in pasture fields. When it grows among grain let it be pulled and placed in large piles.

Pull wild mustard and winter cress out of oats and other grain.

RAISING CORN FODDER.

On many farms there may be found portions of pasture fields and meadows that yield very little grass. Let an acre or two be fenced off and plowed when it just wet enough to crumble nicely; and drill in Indian corn at the rate of three or four bushels per acre.

It will vegetate immediately and get the start of the weeds, so that it will afford a large quanti-

ty of either green or dry feed for stock.

Many of our best farmers grow an acre, or a number of acres, and commence feeding it green in August to all kinds of stock; and they thus obtain more feed than they could from a number of acres of very light grass.

HOW TO OBTAIN LIQUID MANURE.

Procure a sugar hogshead and place it on an inclined platform of boards near the place where the liquid will be used; then fill it with manure, and pour on water until the liquid will flow out into a tub or pail.

Put a lot of coarse stable manure at the bottom, and then put in hen manure and droppings from the privy.

If such manure be applied in dry weather, the plants should be immediately sprinkled with tepid water, to wash off all that may adhere to the leaves. If it were applied when raining, the rain would wash it all off. Strong liquid manure, if applied too bountifully, would destroy some kinds of plants almost as soon as an application of weak brine.

WEEDING CARROTS.

Carrots should never be neglected when they are very small, by permitting the weeds to overtop them, because it not only retards their growth, but a long slender top will be formed, which will be more likely to be broken off by high winds, fowls, dogs, &c., than if the tops were short and strong.

Carrots require rich ground. If they need any manure, apply liquid manure to them with a watering-pot or sprinkler. In hoeing carrots, beets or turnips, the hoe should move backwards and use a scuffle hoe. Then the weeds which he cuts up will lie loosely on the surface of the ground, and will not be pressed into the soil again by treading on them, which will ensure their growth in wet weather about as well as if they were transplanted.

RAISING RED CLOVER SEED.

June is the month to prepare for a paying crop of the seed of red clover. A great number of farmers sustain a great loss in this crop simply because they do not manage right, and they fail to manage right because they do not exactly understand what is necessary in order to grow a good crop of seed.

If the clover be of the large or late variety, it should all be all pastured or mowed off close to the ground, as soon as the 20th or 26th of June. Some farmers turn on all the stock—sheep, horses and cattle, that they can collect, and let them eat it close off. The crop of seed will be all the better for it.

If it be the small early kind, and a crop of hay is to be cut, it should be mowed before it is all in

blossom. It should be cut when it is very green. And why? Because if allowed to grow until the seed has formed, the next crop will be still less, just in proportion to the maturity of the seed of the first crop.

If the first crop be allowed to form the seed, and the heads become a little brown, unless the soil is in a very good state of fertility, the quantity of seed in the next crop will be very small. There will be but little danger of cutting clover too soon when the next crop is for seed.

MAKING CLOVER HAY.

The inveterate prejudice against clover hay arises, almost always, from not knowing how to make it well. There is a great amount of water in clover that must be dried out or it will spoil. If red clover hay has been well made, all kinds of stock like it, and it is very nourishing.

In the first place, do not cut too much at a time. It should have about half-a-day's good sunning, to dry out the water. Too much hot sun will dry it so thoroughly that it will break to pieces when it is handled.

If one has hay caps, put it in cocks of about two or three hundred pounds each; and in pleasant weather, remove the hay-caps, and let it cure for several days in the cocks, after it has had a few hours of hot sunning; and when it is fit to haul, divide each cock into four or five parts, and let in air for an hour or so.

It is a very wrong notion among farmers, that clover hay or grass must not be sunned. The moisture must be dried out of it; and the starch, sugar or gum in it must be dried, so that fermentation will not ensue after it has been put in the barn or stack.

It will require a long time to dry out this moisture when the weather is cloudy, or when it is in cock, if it has not been sunned any. It is the moisture in the clover that causes it to mow-burn or to become mouldy.

When it is hauled to the barn, let only one load be put in a place, if convenient. Then, after a few days, it may all be pitched into one mow, and it will keep well.

HAULING HAY-COCKS WITH A ROPE.

With one horse, is one of the neatest, easiest and most expeditious ways of hauling hay, especially where there is a lack of strong men to pitch hay. Two boys—or a boy and a girl—will haul from a lawn or orchard, where it would not be convenient to go with a wagon very fast. And when a stack is being made, there is no more expeditious way of getting hay to it, or to a barn, where the distance is not more than forty or fifty rods, than with a rope and horse.

It is a neat way, because the rope will sweep all the hay so clean that it will not be necessary

to rake after the bottoms. It is an easy way, because those who are not able to pitch hay, can haul it with a rope. It is an expeditious way, because a boy with one horse can for forty rods haul a cock of hay of two hundred pounds sooner than a man can pitch it on a wagon.

A rope three-quarters of an inch in diameter, is attached to one trace of the harness, and passed around the bottom of a cock of hay, thence through a ring in the harness, and thence to the hand of the rider.

The end of the rope should be wound with a piece of small twine. The hay at the bottom of the cock must be turned up all around, and the rope pushed under a few inches. When the cock has been hauled to the desired place, the rider lets the end of the rope go, and keeps his horse going, on a trot, to another cock. It is good fun for the boys to haul hay in this way. Hay may be hauled directly into the barn in this way, and pitched on the mow as fast as it is hauled with a horse fork.

MAKE YOUR HORSES PITCH HAY,

oats, and barley, with a horse fork. Horse forks are now made so perfect that a small lad will throw a ton over a large beam in less than ten minutes.

We have had a great many inquiries, of late, as to which is the best kind of horse hay fork.

The neat little steel fork, sold by Haines & Pell of N. Y. City, has no superior, and is worth a cart load of long handled forks.

The kinds having tines the form of a grain sickle, are excellent forks, as boys or weak men can handle them with ease. But the strength of a strong man is required to use one with a long handle. And, more than this, a horse will haul up two hundred pounds of hay as easily with one of Haines & Pell's steel forks, as he will one hundred pounds, where a long handled fork is used. We have tested both kinds, and know what we say on this point.

We close these notes by throwing

A BOMBSHELL AMONG FARMERS,

concerning salting hay. We say keep the salt off it—it does more hurt than good. There is moisture in salt. And the idea is to keep as much moisture out of the hay as possible. Hay is not like flesh. Salt will preserve flesh from decomposition, but not plants. Indeed, it will only hasten their decay. Salt will not dry hay in the mow. It only produces dampness. Therefore, keep it away from the hay.—S. EDWARDS, *Town*, in *Country Gentleman*.

—Buckwheat, came originally from Siberia and Tartary.

THE WHEAT PLANT.

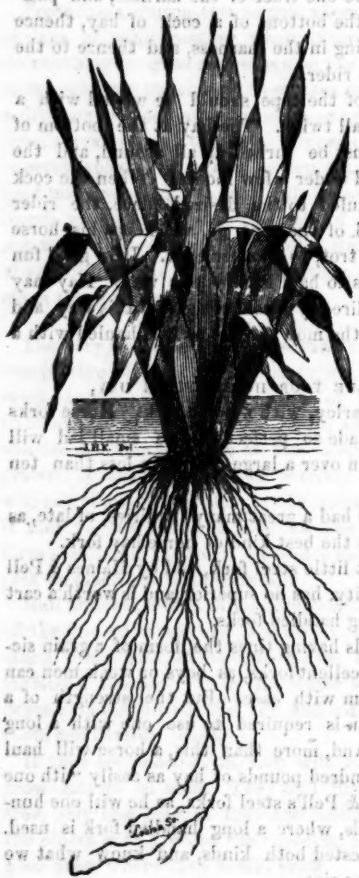


Figure 1.

Fig. 1. Appearance of a normal wheat stalk in the spring after "tillering" has commenced. Fig. 2. A stalk of wheat plant at 20 days from seedling sown at the depth of one inch; α , α , young plants. Fig. 3. Stalk of wheat plant 30 days, sown at the depth of six inches; α , point of tillering.

Through the gentlemanly courtesy of Messrs. HARRIS & FAIRCHILD, of the *Ohio Farmer and Cultivator*, we are enabled to present the above instructive illustrations, in regard to the various depths of wheat planting, and its results.

DEPTH FOR COVERING WHEAT.

and A correspondent of the Ohio Farmer says:—A case has been on trial in the Court of Common Pleas held in Mt. Vernon, Knox Co., Ohio, involving questions quite interesting to farmers, and I will send you for publication the substance of the most important facts elicited.

The suit was upon a contract made between the

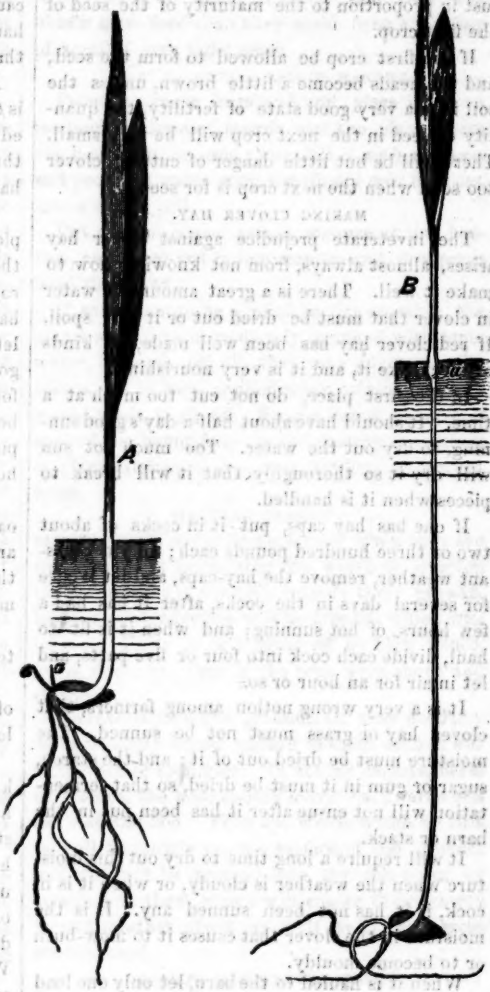


Figure 2

Figure 3

parties in 1860, by which the plaintiff claims that the defendant had agreed to put in for him about 50 acres of wheat with a drill, and to do it in a proper manner. A portion of the ground had been in oats—had been plowed in very deep, and was sowed in the early part of September. The residue was corn ground—was harvested and drilled in without plowing in the latter part of

the month; this came up well and made a good crop. The oats ground, equally good soil, made a very poor crop, hardly worth cutting; but a very small portion of it came up.

The witnesses for the plaintiff stated that, upon examination, it was found that the seed had been deposited to the depth of from 6 to 8 inches, and that while much of the seed germinated, very little came through the surface. Around stumps and in stony places where the drill could not run deep, they said the crop was good.

For the plaintiff, it was claimed that wheat should not be sown deeper than three inches.

One witness testified—"Where I have had wheat put in deeper than that, after it came up and formed a stool of roots at the surface of the ground, the plant between that and the seed perished, and the power of the grain is thus exhausted, and the plant would show much less vigor.—I have examined and experimented until I am satisfied that this is the universal result."

Another witness—"Eight years ago I made an experiment to ascertain the proper depth of sowing wheat—deposited 50 seeds at the depth of 8 inches, and a like number at 7, 6, 5, 4, 3, 2, and 1 inches, and 50 grains I raked in on the surface.—Of the seed deposited at 8 inches, two came up but formed no heads. Of those at 7 inches about 1-4 came through the ground, but formed no heads. Ten of the 50 seeds planted at five inches, made defective heads. I had a few perfect heads in the row planted 4 inches deep, but most defective.—I think all planted 3 inches came up, but the row deposited 2 inches was the best, and came up sooner than any of the rest." This witness did not state whether the ground was dry at the time he planted his seed, but I infer that it must have been, or certainly the seed planted at one inch or raked in over the surface would have been the first to come up.

Another witness—"I should prefer to deposit the seed at the depth of one inch—certainly not deeper than two inches. It is a mistake to suppose that deep seeding is any protection against winter-killing. The roots of the plants form at the surface, whatever may be the depth of the seed. But from frequent examinations I am satisfied that wheat planted at a depth not over two inches, will stool better than that deposited at a greater depth—that is, will produce more plants to a grain."

For the defendant, it was claimed that no contract had been made to put in the grain in a proper manner, but only as well as he knew how. It was also insisted that the wheat was not put in too deep, and most of the witnesses that the wheat would produce good crops at 4 inches, or

even 5 or 6 inches. It was further claimed that the reason of the difference between the corn ground and that upon which the crops had failed, was to be attributed to the fact, that directly after the latter was sowed a heavy shower of rain had formed a crust upon the land so hard that the wheat could not make its way through it.

The soil was described as a dry, loamy, limestone soil, of very good quality for wheat, and yet nearly all the witnesses for the defendant insisted that this crust was the cause of the failure of the crop.

From the facts elicited in this interesting investigation it appears that farmers have no established custom in regard to the proper depth of sowing wheat. Under the old system of broadcast sowing it was the custom to put on two or two-and-a-half bushels to the acre, which was, if plowed in, deposited at all depths, from 1 inch or less to 6 or 7—if only half came up there was still enough for a fair crop. But as the drill puts in all the seed at a uniform depth, it becomes a very important matter that we should hit upon a proper depth, as a mistake may lose us a whole crop. It is perhaps, not common for the ground to be so loose as to allow the drill, whether properly adjusted or not, to run deep; and for this reason, I think farmers seldom pay much attention to the depth at which the drill is running.

SANFORD HOWARD, Esq.—This gentleman, who has been well-known among us during the past twelve years, as editor of the *Boston Cultivator*, and as an enlightened and earnest advocate of agricultural improvement in all its branches, was entertained at dinner at the Parker House, recently, by the Massachusetts Agricultural Club and others, and presented with a massive silver pitcher as a token of appreciation of his services for the improvement of agriculture, and respect for his character. Mr. Howard has been connected with the press for twenty-one years, and has done much by the sound, practical character of his writings, to advance agricultural improvement under safe, scientific principles. His retirement from among us is a matter of very general regret. He has accepted the office of Secretary of the Michigan Board of Agriculture and of the Agricultural College of that State. His duties will place him among the Faculty.—*Boston Transcript*.

EARLY SEED CORN.—The only way to have early corn every season is to obtain the seed each year from a more northern region—the farther north the better. Among all the varieties that have been tried, many of them are highly extolled none is more desirable for table use as green corn than the old fashioned sweet corn.

Hemp is a native of Persia and the East Indies.
The potato is a well-known native of Peru and Mexico.

HOUSEHOLD WORDS.

For the Michigan Farmer.

The Voice of the Departed.

"Mourn not for friends that pass away, they would depart in peace."

Oh! seek not to bind me—

Prolong not my stay;

I would not leave behind me,

Weeping to-day.

Friends that yet love me,

But far, far above me

I, on my journey, would now soar away.

Oh! cease thy sad weeping

And let me depart,

My form now is sleeping;

And silent my heart.

I, spirit, yet near thee,

In vain to cheer thee.

Yet oh! cease thy weeping—for home I must start.

My home is in heaven

Beyond the blue sky;

There all sins forgiven,

There never to die.

The glad spirit ever

Is soaring, and never,

Is heard, from the spirit, in sorrow a cry.

Then cease all thy mourning,

Weep for me no more;

Soon to heaven returning,

My pains will be o'er,

And there comes no morrow

To bring with it sorrow;

For day is eternal in that heavenly shore.

St. MARY'S HOSPITAL, Detroit, May 14th, 1864. CARLOS.

THE BOBOLINK.

BY GEORGE W. BUNGAY.

Where the pheasant late was drumming

With her brown and spotted wings;

Where the velvet bees are humming,

Where the ox-eyed daisy swings—

The gay bobolink is coming,

With his song the welkin rings.

His coat is black as night,

His epaulettes are white;

A meadow bard is he,

Minstrel of liberty.

Hear the chorus of the rover

As he sings upon a reed,

Oh! hark! this, in the clover,

On the tip-top of the weed,

On the elm-twig bending over,

Singing when he harks the seed.

Where the soft cotton grows,

As white as winter snows,

He never sang the lay

That charms the ear to-day.

How soft and tender is the twitter—

Of this meadow minstrel gay!

How jubilant the wings that flitter

While he sings his roundelay!

Above the still and faithful altar

Upon her nest of wool and hay!

When the glad husband sings,

His wife, with folded wings,

Hid in the grass and flowers

Forgets the fleeting hours.

A Plow-Boy.

I think I'll be a plow-boy, call it up or down,
For God made the country, and man made the town,
I love the fields and forests, the tiny, sparkling brook,
The green, luxurious pastures, the silent, shady hook,
I love to listen to the birds that warble in the trees—
The soft sounds of the mourning dove, the humming of the bees.

Yes, I think I'll be a plow-boy, call it up and down,
For God made the country, and man made the town.

—Van Buren county Tribune.

FACTS FOR HOUSEKEEPERS.

SMALL LEAKS IN THE HOUSEHOLD SHIP.

We commend most earnestly the following sketch on household things. Many a fortune has been lost and squandered by want of care and attention to these "little things." A thousand worm-holes that will each admit scarcely a gallon of water during ten hours, will much sooner and almost imperceptibly and surely water-log a ship, than a large hole which will pour in a gallon a minute, for the latter can be seen and stopped, while the former sinks you gradually and almost unnoticed. Thus, in the financial affairs of a family, though the large outgoes may be canvassed and avoided, the whole main income may be dribbled away, and no advance made towards competency, wealth or position. As a rule, the financial success of any family depends more upon the economy of the wife, than upon the earnings or the income of a husband in moderate circumstances.

Mrs. Haskell, in her recently issued "Household Encyclopedia," throws together some of the leaks in a household ship, which we copy for a double purpose:

1st. To show the men that their wives have a multitude of cares, of little details to look after—generally far more items than occur in man's business pursuits.

2d. To perhaps in some cases indicate to housewives details, that they may not have thought of before:

"Much waste is often experienced in the boiling, &c., of meats. Unless watched the cook will throw out the water without letting it cool to take off the fat, or scrape the dripping pan into the swill-pail. This grease is useful in many ways. It can be burned in lamps mixed with lard; or when no pork has been boiled with it, made into candles. When pork is boiled alone, it will do to fry cakes, if cleansed. Again, bits of meat are thrown out which would make hashed meat. The flour is sifted in a wasteful manner, or the bread-pan left with dough sticking to it. Pie-crust is left and laid by to sour, instead of making a few tarts for tea, &c. Cake batter is thrown out because but little is left. Cold puddings are considered good for nothing, when often they can

be steamed for next day dinner, or, as in case of rice made over into other forms. Vegetables are thrown away that would warm up for breakfast nicely. Dish towels are thrown down where mice can destroy them. Soap is left in water to dissolve, or more is used than is necessary. If Bath brick, whiting, rottenstone, &c., are used, much is wasted uselessly. The scrub-brush is left in the water, pails are scorched by the stove tubs and barrels left in the sun to dry and fall apart, chamber pails allowed to run, tins not dried, and iron-ware rusted; nice knives used for cooking in the kitchen, silver spoons are used to scrape kettles, or forks to toast bread. Rinsing of sweetmeats and skimmings of syrup, which make good vinegar, are thrown out; cream is allowed to mold and spoil; mustard to dry in the pot, and vinegar to corrode the cask; tea, roasted coffee, pepper and spices, to stand open and lose their strength. The molasses jug loses the cork, and the flies take possession. Sweetmeats are opened and forgotten. Vinegar is drawn in a basin, and allowed to stand, until both basin and vinegar are spoiled. Sugar is spilled from the barrel, coffee from the sack, and tea from the chest. Different sauces are made too sweet, and both sauce and sugar wasted. Dried fruit has not been taken care of in season, and becomes wormy. The vinegar on pickles loses strength or leaks out, and the pickles become soft. Potatoes in the cellar grow, and the sprouts are not removed until they become worthless. Apples decay for the want of looking over. Pork spoils for the want of salt, and beef because the brine wants scalding. Hams become tainted or filled with vermin, for the want of right protection. Dried beef becomes so hard it can't be cut. Cheese molds, and is eaten by mice or vermin. Lard is not well tried in the Fall, and becomes tainted. Butter spoils for want of being well made at first. Bones are burned that will make soup. Ashes are thrown out carelessly, endangering the premises, and being wasted. Servants leave a light and fire burning in the kitchen, when they are out all the evening. Clothes are whipped to pieces by the wind; fine cambrics rubbed on the board, and laces torn in starching. Brooms are never hung up and soon are spoiled. Carpets are swept with stubs, hardly fit to scrub the kitchen, and good new brooms used for scrubbing. Towels are used in place of holders, and good sheets to iron on, taking a fresh one every week, thus scorching nearly all in the house. Fluid, if used, is often left uncorked, endangering the house and wasting the alcohol. Caps are left from lamps, rendering the fluid worthless by evaporation. Table linen is thrown carelessly down and is eaten by mice, or put away damp and is mildewed; or the fruit stains forgot-

ten, and the stains washed in. Table cloths and napkins used as dish-wipers; mats forgotten to be put under hot dishes; teapots melted by the stove; water forgotten in pitchers and allowed to freeze in winter; slops for cow and pig never saved; china used to feed cats and dogs on; and in many other ways, a careless and inexperienced housekeeper will waste, without heeding, the hard-earned wages of her husband; when she really thinks, because she buys no fine clothes, makes old ones last, and cooks plainly, she is a most superior housekeeper."

Don't Fear Fresh Air.

Eat all you can digest, and exercise a great deal in open air, to convert what you eat into pure, healthful blood. Do not be afraid of out-door air, day or night. Do not be afraid of sudden changes of weather; let no change, hot or cold, keep you in doors. If it is rainy weather, the more need for your going out, because you eat as much on a rainy day as upon a clear day, and if you exercise less, that much more remains in the system of what ought to be thrown off by exercise, and some ill results, some consequent symptom of ill feeling is the certain issue. If it is cold out of doors, do not muffle your eyes, mouth and nose in furs, veils, woolen comforts, and the like; nature has supplied you with the best muffler, with the best inhaling regulator, that is, two lips; shut them before you step out of a warm room into the cold air, and keep them shut until you have walked briskly a few rods and quickened the circulation a little, walk fast enough to keep off a feeling of chilliness, and taking cold will be impossible. What are the facts of the case; look at rail road conductors, going out of a hot air into a piercing cold winter and in again every five or ten minutes, and yet they do not take cold oftener than others; you will scarcely find a consumptive man in a thousand of them. It is wonderful how afraid consumptive people are of fresh air, the very thing that would cure them, the only obstacle to a cure being that they do not get enough of it; and what infinite pains they take to avoid breathing it, especially if it is cold, when it is known that the colder the air is, the purer it is; yet, if they cannot go to a hot climate, they will make an artificial one, and imprison themselves for a whole winter in a small room, a temperature not varying ten degrees in six months; all such people die, and yet we follow in their footsteps. If I were seriously ill of consumption, I would live out of doors day and night, except it was raining or mid-winter, then I would sleep in an unplastered log house. My consumptive friend, you want air, not physic; you want pure air, not medicated air.—*Hall's Journal of Health.*

Disinfecting Agent.

A correspondent of the *Germantown Telegraph* says:—

Common copperas, which costs but three cents per pound, is perhaps one of the most efficient and economical disinfecting agents known. If two pounds of copperas be dissolved in ten quarts of boiling water, and the solution poured into gutters, sinks, cess-pools, and other places where filth necessarily accumulates, its deodorizing power will become speedily and convincingly apparent. I advise every housekeeper to provide a quantity of the article, and keep it constantly on hand, to be used when wanted. The unpleasant odor emanating from the barnyard, and other places where manure is stored or kept during the hot weather ordinarily experienced during the vernal and summer months, is speedily neutralized by a slight sprinkling of this solution, as well as the extremely unpleasant smell engendered by decaying vegetable and animal substances in cellars and out-houses, and which it is frequently found difficult to prevent. Copperas is also an excellent manure. It acts as an absorbent and fixer of the gaseous and volatile products of decomposition, and thus becomes an efficient medium of their transportation to the fields where they are required to give energy to vegetable life. And here permit me to mention a few other important facts in connection with this subject. Sulphuric acid—another cheap article, which, like copperas, may be obtained of the druggists in any desirable quantity, is also a most valuable article for this purpose. If used in a diluted state, and sprinkled over the floors of stables and other buildings where animals are kept, it will in a short time disinfect the same of all noxious and unpleasant odors, and render the atmosphere pure and sweet. Like copperas, it is also a good manure. Another article of great efficiency is found by slaking quick lime to a thick, plastic, much consistence, with water saturated with salt. This is what may be properly called domestic chloride of lime, being in every respect similar to, if not strictly identic with, the chloride of lime found at the shops, although it comes at less than one-twentieth the cost.

THE BIRDS AND ANIMALS OF LABRADOR.—We cannot but remark how carefully the animals of this icy country are protected by nature from their enemies. When man goes forth upon the snow to hunt, where upon the spotless mantle, the smallest dark object would readily be revealed, when they are robed in white, the white partridge flies up from his very feet, where he perceived but lumps of feathery snow. The deer, bear, fox, ermine, all clad in white, pass him with impunity. Did not hunger lead them to the traps or their deeply embedded tracks, betoken their whereabouts, seldom would they fall victims to man. In the summer, there are slaty and mouse colored, like the rocks, or wood-colored, like the trees, and in many an imaginary rock or stick, or stub, there is animal life, which will take to itself legs or wings when opportunity of easy escape offers.

FLORICULTURE.**FLOWERING AND ORNAMENTAL SHRUBS.**

Shrubs are so closely connected with flowering plants, and indeed so many of them are embellished with flowers, that they may be considered as essential to the completion of an ornamental garden. They are all perennial, and are divided into two classes, deciduous and ever green; the former lose their leaves in the winter, the latter only shed them when others are ready to supply their places. Shrubs are not only necessary to the embellishment of a flower garden, but many kinds of them are eligible for hedges to it, and may be planted at a trifling expense. These hedges should be frequently trimmed and trained, the sides cut even, and the tops sparingly clipped, so as to make them ornamental, as well as useful, and also to increase the vigour of their growth. When the hedges become open or naked at the bottom, they should be plashed down; this is done by cutting the branches half through near the ground; they will then bend easily, and may be interwoven with the adjoining branches. When Shrubs, Creepers or Climbers, are planted against walls or trellises, either on account of their rarity, delicacy, or to conceal a rough fence or other unsightly object, they require different modes of training; some attach themselves naturally, as the Ivy, and merely require to be occasionally guided, so as to cause a regular distribution of their shoots; others must be treated like fruit trees, trained thinly, if blossoms are the object, and rather thicker, if the intention be to show the foliage to the greatest possible advantage.

Ornamental shrubs grow from one foot to twelve or more in height; and where such are planted for ornament, the height of each plant when full grown should be considered, and also the mode of growth, that every one may be so planted as to show to advantage, observing that the tall-growing should be planted in the back borders, and those of low growth forward; but if they are required to be planted in clumps, they should be so arranged as to rise gradually from the sides to the middle, and be afterwards neatly trimmed. Shrubs require an annual pruning, at which time, cut out all irregular and superfluous branches, and head down such as require it, forming them into handsome bushes; apply stakes to such as may need support, and see that the low-growing ones do not injure each other, nor interfere with other dwarf plants near them.

Many kinds of Shrubs may be raised from seed sown early in the spring, but are more commonly propagated by suckers, layers, or cuttings. Like other plants, they require a good soil, which should be manured every two or three years, and some of the tender kinds should have some protection in winter.

Flowers, beautiful Flowers!

The wildwood blossoms seem to cast a spell of enchantment over the senses of travellers in the almost untrodden forests of Michigan:

The summer has arrived, bringing with it the most welcome visitors—the flowers. During a tramp the other day we noticed that the woods are covered with them; they are annual visitors and are always welcome. For who would wish to live without flowers? Where would the poet fly for his images of beauty, if they were to perish forever? Are they not the emblems of loveliness and innocence—the living types of all that is pleasing and graceful? We compare young lips to the rose and the white brow to the radiant lily; the winning eyes gathers its glow from the violet, and a sweet voice is like a breeze kissing its way through flowers. We hang delicate blossoms on the silken ringlets of the young bride, and strew her path with the fragrant bells when she leaves the church. We place them around the marble face of the dead in the narrow coffin, and they become symbols of our affections—pleasures remembered and hopes faded, wishes flown and scenes cherished, the more that they can never return. Still we look

to the far-off spring in other vailies—to the eternal summer beyond the grave, when the flowers which have faded shall again bloom in starry fields, where no rude winter can intrude. They come upon us in spring like the recollections of a dream, which hovered about us in sleep, peopled with shadowy beauties and purple delights, fancy brodered. Sweet flowers! that bring before our eyes scenes of childhood—faces remembered in youth, when Love was a stranger to himself! The mossy bank by the wayside, where we so often sat for hours, drinking in the beauty of the primroses with our eyes—the sheltered glen, darkly green, filled with perfume of violets, that shone in their intense blue, like another sky spread upon the earth—the laughter of merry voices—the sweet song of the maiden—the downcast eye, the spreading blush, the gasped at its own sound—are all brought back to memory by a flower.

The Prairie Roses.

There is a family of roses known as the Prairie-roses (botanically, *rosa rubifolia*), which are hardy climbers, and adapted to every climate and soil. They were raised by Mr. Feast of Baltimore and Mr. Pierce of Washington, from seeds of the wild climbing rose of the Western States, sometimes called "the prairie rose," and, in certain localities, "the Michigan rose." But it might as well be called the Ohio, or the Kentucky rose as the Michigan. This original wild rose has single flowers. These gentlemen sowed seeds of this wild rose in their gardens, by the side of beds of *Noisettes* and other superior roses, where the pollen of the one would be carried to the other. Seeds of the wild roses, so impregnated, were sown, and from them a great number of new varieties were originated. Out of this multitude, a dozen or more of the finest, with double flowers have been selected, named, and sent into market. It is plain, therefore, that the prairie rose, or the Michigan rose, is the original wild single flowered plant of the West, and not the splendid, various named and double-flowering progeny derived from its seed by hybridization. Of these last, we will give the names, and such brief descriptions as are at hand:

1. *Baltimore Belle*.—Light blush, nearly white, double, flowering in clusters, and with the fragrance of a Tea rose.
 2. *Queen of the Prairies*.—Larger than the preceding, deep pink, very double, with occasionally a white stripe on the petals.
 3. *Perpetual Pink*.—Pink, changing to purple, and flowering twice a year in strong soils.
- The above are Mr. Feast's seedlings; the following are Mr. Pierce's:
1. *Pride of Washington*.—Quite dark Pink cupped in clusters of 20 or more.
 2. *Anna Maria*.—Lighter pink, smaller, double, cupped.
 3. *Eva Corinna*.—Delicate blush, carmine centre, fragrant.
 4. *Mrs. Hovey*.—White, very double, larger flowers than any others. A superb plant.
 5. *Jane*.—Lilac rose, imbricated, double, in clusters.
 6. *Linnæan Hill Beauty*.—Pale blush, beautifully tinted.

The others, which we have not seen, are as follows: Miss Grinnell, *Rannucelliflora*, Virginia Lass, President, Triumphant, Mrs. Pierce. These are all quite desirable. There may be others still, of which we have not heard. From the whole list, a fine collection may be made for one's garden or veranda.

How to have Flowers Double.

A young lady in Central New York wrote to the Farmer's Club, saying that some of her balsam and aster plants produced flowers very double, while on other plants the flowers were all single, and asking if the Club could not tell her how to have all her flowers double.

Mr. Pardee said: "Mr. President, the remedy for this difficulty is simple and effectual. When a plant produces a flower with a single row of petals, it must be inexorably torn up by the roots, and trampled in the path. Balsams, pinks, and all that class of plants, are apt to have seeds which will produce plants that will bear single flowers; and if the pollen from

these is allowed to fructify the flowers of other plants, the whole bed will be hybridized, and the following year a crop of inferior flowers will be produced. On the other hand if the plants that bear single flowers are firmly sacrificed, the seed will improve, and frequently very fine and curious flowers will be obtained.

BEES.

STRENGTHENING WEAK SWARMS.

A correspondent of the Country Gentleman, says: The following experiments have been tried with good success, so far as we are aware. A hive that is weak in numbers is made to change places with one that is strong and can spare bees without particular detriment. For instance, you have a stock in the spring, that is weak in numbers but otherways all right. Another stock has abundance of bees. When they are in flight, quietly change the hives to each others' stands. The bees will seek their marked location, and bees enough from the strong stock will enter and remain the weak one, to reinforce it and make it a good stock. In swarming them, if you have a small swarm come off, hive it, and place it where you wish it to stand. Two or three days after hiving, change stands with another hive that has refused to swarm, but is "black with out-hanging bees." Swarms will speedily become strong in number, and if the honey season continues good, will lay in a good supply for the winter. The old stock is not injured, as still enough bees remain to carry on their usual labors. Before changing stands, blow into each hive a little tobacco smoke, to make them fill themselves and mix peaceably. When they find they are away from their own location, and in a strange hive, they seem to take things kindly and make the best of the matter. At least such has been our experience in the four or five cases of trial the past season. We propose to experiment still further another season.

Mr. Langstroth mentions that he finds that bees when swarming, can be determined to some "selected" spots. He speaks of stringing bees on a thread, making a ball the size of a hen's egg, and carrying it among the flying bees—that the Rev. T. P. Hunt says, by this device he can always prevent bees leaving the premises. Mr. L. says, "a black woolen stocking or piece of cloth, fastened to a shady limb in plain sight of hives, would probably answer a good purpose." That swarms are attracted to such places not only by the color but by the ease of attaching themselves to such objects. It is well known that places selected by first swarms, are very apt to be chosen by those that come after. That when one swarm is followed in quick succession by others, that they are very liable to cluster all in one location.—

Analogy would then lead us to suppose that the bee-keeper who furnishes imitation clustering devices, at convenient points of the apiary, would be rewarded by having his swarms settle where they can be easily secured or hived.

Mr. Solomon Sawyer, of Rolling Prairie, Wisconsin, informs me that he has had good success with a decoy made of black felt hat, shaped like a cluster of bees, about the capacity of a pint, stuffed and hung in the limb of a tree or small shrub, in plain sight of his hives. That most of the swarms settled on these devices. They should be made so as to be readily detached from their location, so that they can be carried and shaken, or laid at the entrance of the hive. If such, or similar devices, succeed, the securing and hiving of natural swarms will be much simplified.

GYPSUM, OR GROUND PLASTER.

Michigan can boast of some of the most extensive Gypsum beds now known, its value as a fertilizer when ground is, says a writer in the Free Press, universally recognized, at least among intelligent and practical farmers, as possessing qualities of great value in stimulating the growth and production of all kinds of grain and grapes. It is used upon all sorts and varieties of soil; in all seasons and conditions of soil its generative and productive power is acknowledged. Though in its adaptation to particular soils, the amount used, the grains and grapes most requiring this fertilizer; all these form questions that require long experience and careful observation and thorough study in order to arrive at definite result, and in order to obtain that amount of available knowledge which shall be of practical benefit in its use and application. There is, in fact, no department of human industry that requires and actually demands so vast and varied an amount of knowledge, of culture, of thorough scientific attainment, as the field of agriculture. The tracing effects that flow from discovered causes, the operations of known laws, are here to be developed and revealed. Mere brute force and muscle never did and never will make very brilliant conquests in the domain of nature. These must be guided and directed by skill and intelligence to accomplish valuable results. The miracles that are being accomplished daily and hourly upon our farms and in our workshops, through the wonders of labor-saving machinery, are the creations of men of thought, of intelligence, and culture.— Their achievement are but the triumphs of brain power muscle and brute force.

A SOURCE OF WEALTH.

Among the great resources of this State gypsum is entitled to peculiar prominence. It ranks now among the leading sources of wealth in the

State, and in value and importance can be justly classed among our but partially developed treasures of copper, iron, lead, silver and petroleum.

WHERE FOUND.

The principal beds that have yet been worked on lie in Kent county, in the vicinity of the city of Grand Rapids, though it is known to exist in quantities in the vicinity of Tawas Bay, Bay Co., in Monroe county, and other points in the State. In boring for salt in the Saginaw valley, it is found in nearly every well that has been sunk.— At Carrollton it is found at a depth of five hundred feet. At Zilwaukee, at a depth of seven hundred feet, it has a thickness of twelve feet.— It crops out five miles south of Tawas city. Forty rods from the beach it was struck at a depth of six feet from the surface, and is known to have a thickness of over twenty feet. In this locality there can be put little doubt that gypsum exists in paying quantities. The facilities for shipment are excellent, and there is every reason to believe that at an early a large trade will here spring up in this article.

In the vicinity of Mackinac a mass of gypsum and mottled clay can be seen at the surface of the water. Brown and gray gypsum also makes its appearance in the vicinity of Little Pt. aux Chene. Quite a trade was, at one time, we believe, carried on at this point, but of late years nothing in particular has been done at this place.

In sinking an Artesian well at Detroit in 1829-30 gypsum two feet in thickness was struck at a depth of 250 feet.

THE GYPSUM BEDS AT GRAND RAPIDS.

The largest beds of gypsum yet known to exist in this State are found in the vicinity of Grand Rapids. They have been worked with great success for a number of years. Their extent is exhaustless. Hundreds of acres in the vicinity of the city have an understratum of from eight to twelve feet in thickness.

AGRICULTURAL ANALYSIS OF GYPSUM.

Prof. L. R. Fish, late of the Agricultural College, in his analysis of the Grand Rapids and Ohio gypsum, gives the following comparative results:

	Grand Rapids Gypsum.	Ohio Gypsum.
Water	20.8445	20.8631
Silicic acid	Trace	.0235
Alumini and oxyd of iron	.5354	.7630
Sulphuric acid	46.2257	45.8303
Lime	32.0385	31.5628
Potassa	.2115	.2676
Soda	.0140	.0944
Chlorine	.0078	.0050

99.8774 90.4092

The Grand Rapids gypsum contains only 1.5857 in 100 of impurities, and the Ohio gypsum 3.10572,

The potash, the soda and the sulphuric acid, nominally classed as impurities, are quite as valuable as the pure gypsum.

MARVELS OF LIQUID MANURE.

We give the following extract from a very interesting work recently published entitled "*Ten Acres Enough*, or how a very large family was made comfortable on a small farm"—which shows the great value of liquid manure, this can be applied at any time during the growing season, (which cannot be said of dry) and strikes immediately to the roots:

A German, with his wife, and two children just large enough to pull weeds and drive a cow, had settled, seven years before, on eight acres, from which the owner had been driven by running deeply in debt at the grog-shop. The drunkard's acres had of course become starved and desolate; the fences were half down, there was no garden, and the hovel, in which his unhappy family was once snugly housed, appeared ready to take its departure on the wings of the wind. Every fruit-tree had died. In this squalid condition the newly arrived German took possession, with the privilege of purchasing for \$600. His whole capital was three dollars. He began with four pigs, which he paid for in work. The manure from these was daily emptied into an empty butter-firkin, which also served as a family water-closet, and the whole was converted into liquid manure, which was supplied to cabbages and onions. A gentleman who lived near, and who noted the progress of this industrious man, assured me that even in the exhausted soil where the crops were planted the growth was almost incredible. On turnips and ruta-bagas the effect was equally great. Long before winter set in, this hero had bought a cow, for while his own crops were growing he had earned money by working around the neighborhood. He readily obtained credit at the store, for he was soon discovered to be deserving. When away at work, his wife plied the hoe, and acted as mistress of the aforesaid butter-tub, while the children pulled weeds. His cabbage and roots exceeded any in the township; they discharged his little store-bills, and kept his cow during the winter, while the living cow and the dead pigs kept the entire family, for they lived very close to the wind.

This man's passion was for liquid manure. If he had done so much with a tub, he was comparatively rich with a cow. Then he sunk a hog-head in the ground, conducted the wash of the kitchen into it, and there also emptied the droppings from the cow. It was water-closet for her as well as for the family. It is true that few of us would fancy such a smelling-bottle at the

kitchen door; but it never became a nuisance, for he kept it innocuous by frequent applications of plaster, which improved as well as purified the whole contents. It was laborious to transport the fluid to his crops, but a wheel-barrow came the second year to lessen the labor. There happened, by the nearest accident, to be a quarter of an acre of raspberries surviving on the place.—He dug all round these to the depth of eighteen inches, trimmed them up, kept out the weeds, and gave them enormous quantities of liquid manure. The yield was most extraordinary, for the second year of his location there he sold \$84 worth of fruit. This encouraged him to plant more, until at the end of four years he had made enough, from his raspberries alone, not only to pay for his eight acres, but to accumulate of multitude of comforts around him. In all this application of liquid manure his wife had aided him very much.

It was natural for me to feel great interest in a case like this, so I called repeatedly to see the grounds and converse with the German owner.—As it was seven years from his beginning when I first became acquainted with him, his little farm bore no resemblance to its condition when he took possession. There were signs of thrift all over it. His fences were new and clear of hedge-rows; his house had been completely renovated; he had built a large barn and cattle-sheds, while his garden was immeasurably better than mine.—Every thing was in a condition exceeding all that I had seen elsewhere. His two girls had grown up into handsome young women and had been for years at school. All this time he had continued to enlarge his means of manufacturing and applying liquid manure, as upon its use he placed his main dependence. He had sunk a large brick cistern in his barn-yard, into which all the liquor from six cows and two horses was conducted, as well as the wash from the pig-pen and the barn-yard. A fine pump in the cistern enabled him to keep his manure-heap constantly saturated, the heap being always under cover, and to fill a hog-head mounted on wheels, from which he discharged the contents over his ground. The tub and underground hog-head with which he commenced were of course obsolete. If it be possible to build a monument out of liquid manure, here was one on this farm of eight acres. Its owner developed another peculiarity—he had no desire to buy more land.

I was so impressed by the example of the thriving German referred to, that I resolved to imitate him. He had given me a rich lesson in the art of manufacturing manures cheaply, though I thought it did not go far enough. Yet I made an immediate beginning by building a tank in the

barn-yard, into which the wash from stable, pig-pen, and yard was conducted. This was pumped up and distributed over the top of the manure heap under the shed, once or twice weekly. A huge compost-heap was made of leaves, each layer being saturated with the liquor as the heap accumulated, so that the whole mass was moist with fluid manure. It was never suffered to become dry. Now, as in the centre of a manure heap, there is no winter, decomposition went on at a rapid rate, especially among the leaves, stimulated by the peculiar solvents contained in the liquor. Thus when taken out for use in the spring, both heaps had become reduced to a half fluid mass of highly concentrated manure, in a condition to be converted, under the first heavy rain, into immediate food for plants. Though my money-cost for procuring manure for next season would be greater than before, yet my home manufacture was immense. As I was sure that high manuring was the key to heavy crops and high profits, so my studies, this winter, where as diligently pursued in the barn-yard as in the library, and I flattered myself that I had gathered hints enough among my neighbors to enable me, after next year, to dispense entirely with the purchasing of manure.

But I had other reasons for avoiding the purchase of manure—none can be purchased clear of seeds, such as grass and weeds. I have already suffered severely from the foul trash that has been sold to me. One strong warning of the magnitude of the nuisance was given by the condition of my strawberries. A small portion of them was covered, at the approach of winter, with litter from the barn-yard, and another portion with cornstalks. The object was protection from the cold; and it may be added that the result, so far as protection goes, was very gratifying. But when the covering was removed in April, the ground protected by the barn-yard litter was found to be seeded with grass and other seeds, while that protected by the cornstalks was entirely clean. During a whole year I had the utmost difficulty to get the first piece of ground clear of these newly planted pests, and am sure that the labor thus exerted cost more than the strawberries were worth. From this sore experience I have learned never to cover this fruit with barn-yard litter. When they are covered, cornstalks alone are used. They are drawn back into the bulks in April, where they serve as a mulch to keep down the weeds, and ultimately decay into manure. Though not so neat to look at, nor so convenient to handle as straw, yet they answer quite as well, and at the same time cost a great deal less.

DOMESTIC ANIMALS.

DON'T STINT THE COLTS.

A very promising colt, the product of a superior mare and well bred stallion, very frequently proves a worthless horse. The reason is that after the colt is weaned, he is suffered to shift for himself, and subsist on the cheapest and coarsest kind of provender. Sometimes he is turned out with young cattle, and has the privilege of boarding with them, on scanty fare in the day time, and lodging with them at night, in unsheltered situations, where, in consequence of inclement weather and damp ground, their constitutions are ruined, and the foundation is laid for many of those diseases which, after emergency from colthood, appear and make such bad havoc among our best appearing horses.

It is bad policy to stint the colt of food after weaning, for there is no season of its life when care, good and full feeding of appropriate food, will tell so well as when commenced at this period and continued during that of the first year. The reason is very plain; the mother's milk contains, in a highly concentrated form, all the elements which enter into the composition of the colt's body, and it is the only specimen of a single article of food capable of affording nutriment to young animals and of perfecting the structures of their body. Now suppose that, after weaning the colt, we let him trust to luck for grub, by offering him the freedom of the farm, where inferior grass and dried cornstalks obtain—is it possible that he can there find any thing that will compare with the caseine of his mother's milk, in furnishing the constituents of blood? Hence in an unthrifty pasture, or where the same has been cropped by cattle, the colt's chances of procuring a living are rather slim. The reader may contend that many colts thus fed and cared for manage to grow and live, and I think so too, but they have to consume so much of the inferior fodder that it makes them pot-bellied, lank-legged, ravenous, and wormy "sons of mares," and prematurely impairs their digestive organs.

At no time in the life of colts, do English farmers pay so much attention to these animals, or feed them better, than during their first winter; and these men contend that if you inform them correctly, how a colt is fed and cared for the first year, they will predict what kind of a horse he will make.

Just so soon as a colt is weaned, he should have a few handfulls of good oats, bruised, per day, a few pounds of cut straw, and a few pounds of sweet hay cut. All else that he procures in the pasture will fill up the gap in his stomach (which

occurs between meals,) and he will not over-stend that organ, nor his intestines, simply because the wants of nature have to a great extent been satisfied, or rather provided for, by feeding the articles just alluded to. Some persons may object to feeding colts, in a generous manner, on account of the expense; but if good fodder makes strong, vigorous and healthy colts, and such colts make valuable horses, then I think that such investment must pay well.

Finally, the principal effect produced on the growing animal by an insufficient nutriment, is to hinder his best development. Therefore, I say *don't stint the colt*.—Dr. Dadd.

THE SPAYING OF COWS.

Comparatively few stock raisers or farmers in Michigan, fully understand either the art or advantages of spaying cows; still we have among us one of the most successful operators in this country, in the person of Mr. WILLIAM WALLINGTON, of Ann Arbor, he has practiced this for a number of years, having spayed for Mr. James Allen, of Pittsfield, and twenty for Mr. Samuel Lyndon, of Plymouth, operating upon full one hundred cows in different parts of the State, and the demand for his services have increased to such a degree that he has continual calls from all points. Every operation without any exception has been successful in securing the object aimed at, and no injury has in any case happened to the animals treated.

The object of spaying is either to secure a perpetual supply of milk without any necessity of the animal "coming in" with calf; or else to prepare her more rapidly and perfectly for beef.—The advantages gained by this process can be best understood from the following statements translated from the French treatise of Francis Guezon on Milch cows. For his success in this practice we refer our readers to Mr. Samuel Lyndon, of Plymouth, and to Professor H. S. Frieze, of Ann Arbor.

Translated from "La Normandie Agricole Journal D'Agriculture Pratique." &c., &c.—French.

Statement of M. P. A. Morin, Veterinary Surgeon at the Royal Depot at Langonnet.

A land owner in the United States, Mr. Winn seems to have had the first practice in spaying cows. The object of the operation was to maintain in the cow, without interruption, a supply of the same quantity of milk that she gave at the time of spaying. Notwithstanding the favorable results that Mr. Winn claimed to have obtained, the operation remained almost unknown in France until a veterinary surgeon of Lausanne (a Swiss), M. Levrat made known the experiments practised by him, and their effects. The *Treatise of*

M. Levrat ends with the following conclusions:—

"The effect of spaying seems to me to cause a more abundant and constant secretion of milk, which possesses also superior qualities, whence the following advantages result to the proprietor:—

"1. An increase of one third in the quantity of milk.

"2. The certainty of having almost constantly the same quantity of milk.

"3. Exemption from accidents which may happen during the period of heat, when the cows mount each other, or are covered by too large bulls.

"4. Exemption from the risk of accidents which sometimes accompany or follow gestation and calving.

"5. Ease in fattening cows, when their milk begins to dry up.

"6. In fine, spaying is the only means of preventing onerous expenses, occasioned by cows becoming 'taurelières,' which is so frequently the case in some countries, that it is rare to see cows kept more than two or three years without getting in this state: as for example, in the environs of Lausanne and Lavaux, where they are obliged for this reason to change all their cows every two or three years, which is quite ruinous."

M. Levrat confirmed, after a year's observations, this fact, that the quantity of milk was constantly kept the same after the time of spaying.

M. Regere, veterinary surgeon at Bordeaux, inserted in the *Recueil de Medecine Veterinaire*, a series of facts upon the spaying of cows, that had been acted upon by various proprietors.

It appears from these facts, which he recounts with many details, and whose authenticity is fixed, that the spayed cows have given without interruption after the operation, a quantity of milk at least double the average of what they gave during the preceding years. "After the researches that I have made since I commenced all these experiments, to the present time," says M. Regere, "this calculation is very exact, and if the cows continue to milk during their whole life, in like manner, the operation of spaying will furnish incontestable advantages, particularly in large cities, and their vicinity, where fodder is very dear, and where milk always sells well."

A remark made by MM. Levrat and Regere, is that some cows, although they have been spayed, have had their heat, notwithstanding the removal of their ovarium, and the incapacity for their reproduction. These animals present, at the time of their heat, this difference from what we remark during the same period in cows not spayed, that their milk does not undergo any alteration in either quantity or quality.

We may add, that the school of Alfort has, re-

cently, practised this operation upon different cows, and that all the results obtained have reached the point we have above stated.

Leaving this, we arrive at the facts determined by M. Morin.

“Young cows ought to receive that nourishment which favors the secretion of milk, and which in consequence renders active their lactiferous vessels. The cow is not usually in full production until after the third or fourth calf; she continues to give the same return up to the seventh or eight; from this time lactation diminishes after each new calving. In the other hand, from the moment that the cow has received the bull, and gradually as gestation advances, the quantity of milk progressively diminishes in most breeds, until three or four months before healthy parturition, the secretion of milk is almost nothing. It is to guard against this loss, and other inconveniences, that we lay down what we have obtained after some years' experience in spaying the cow, and the happy results that we meet with daily.

OF THE SPAYING OF THE COW AND THE ADVANTAGES OF THIS OPERATION.

“The operation of spaying in the cow is productive of great advantages.

“1. The cow spayed a short time after calving, that is to say, thirty or forty days afterward, and at the time when she gives the largest quantity of milk, continues to give the like quantity, if not during her whole lifetime, at least during many years, and at the time when the milk begins to dry up the animal fattens. We are able to add, moreover, at this day, certain facts, the result of many years' experiment, that the milk of the spayed cow, although as abundant, and sometimes more so, than before the operation, is of a superior quality to that from a cow not spayed; that it is uniform in its character, that it is richer, consequently more buttery, and that the butter is always of a golden color.

“We believe that we ought to remark in passing, that if we feed the spayed cow too abundantly, lactation diminishes, and that the beast promptly fattens. It is therefore important that the feeding should not be more than sufficiently to enable us to obtain the desired result.

“2. The spayed cow fattens more easily; in flesh, age considered, is better than that of the ox; it is more tender and more juicy.

“Indeed, no one is ignorant of the fact that all domestic animals, females as well as males, deprived of their procreative organs, fatten more quickly than those which retain them; that the flesh of the spayed females is more tender and more delicate than that of males. The same phenomena take place among spayed cows that

occur among other females that have submitted to this operation; so, besides the advantage of furnishing a long-continued supply, before commencing a course of fattening, of abundant milk, and butter of a superior quality, the cow fattens easily and completely, and a certain benefit follows this course.

“3. In spaying decrepit cows, that is to say, of the age of from six to seven years, puny, small ones; those which, though fine in appearance bear badly; those which are subject to miscarriage; those which frequently experience difficult calving, or delivery; those difficult to keep; and finally, all those that are *taurelières*, that is to say, constantly in heat—we have in addition to an abundant production of milk and butter, and a facility of fattening, the advantage of preventing a degeneration of the species, and moreover of avoiding a crowd of accidents or maladies which frequently take place during or after gestation, and of diminishing those which happen during the period of heat, such as that of heavy cows mounting others, or being jumped upon by too heavy bulls.

“Except under peculiar circumstances, we should take care in spaying the cow, that its teats have acquired their complete development, and that the milk has the proper qualities. The most suitable time is after the third or fourth calving.

“Many societies of agriculture, impressed with the important results that this operation effects, fix yearly at their agricultural meetings, premiums for the encouragement of the spaying of old cows. We doubt not that other societies who have not yet adopted this plan—not being convinced of its importance—when they are, will imitate their example. By this means they bestow upon the country a new source of products.

“We have been engaged for four years in researches upon this valuable discovery, we believe that it is incumbent upon us to state the results that we have obtained up to the present time. In the number of twenty-seven cows, aged from six to fifteen years, that we have actually spayed, we have had the following results: 1. Increase of milk in cows of six years; 2. Constant production in those that have passed that age; 3. Milk richer than that of the cow not spayed, consequently more buttery, and the butter both of a uniformly golden color, and having an aroma and taste far superior to that of a cow that has not undergone this operation.

Gang Plows.

Mr. H. O. Smith in speaking of the great demand for labor-saving machinery upon the farm, and the success our inventors are meeting with in supplying the demand, gives the following regard-

ing a gang plow which he has been using upon his farm in LaSalle county, Ill:

"I have broken about fifty acres at an average depth of six inches with a gang plow the present season, and I am decidedly of the opinion that the same team can do from one-fourth to one-third more work with a gang plow than with a single plow, and do it equally well. This may surprise you, and I doubted it until I made the trial. The gang plows hang upon wheels and have the same advantage over the common plow that the wagon has over the sled on the ground."

THE STATE AGRICULTURAL COLLEGE.

SECRETARY HOWARD MAKES A GOOD MOVE.

LANSING, June 1, 1864.

To the Farmers of Michigan:—

The Secretary of the Board of Agriculture desires to obtain correct information in regard to the agricultural resources of the State, and with this view proposes the questions herewith annexed. Answers to them, or to any portion of them, or any information relating to rural affairs—whether specially called for by the questions or not—will be thankfully received. Replies should be forwarded as early as practicable, in order to render the matter they comprise available for the report of the present year. It is hoped that a ready response will be given to this call, and that materials will be thus gathered for the ground-work of a series of reports which shall advance the interests of the farmers of Michigan.

SANFORD HOWARD,
Sec'y Mich. Board of Agriculture.
CULTIVATED CROPS.

1. How long has the soil of your section been cultivated, and what was its original character as to composition, wetness or dryness, &c.? State whether it was prairie, "opening," or wood-land, and if the latter, what were the prevailing species of trees.

2. What are the principal crops, and what has been their average yield per acre, from the first? If there has been an increase or a decrease, state how much, and from what causes, *particularly in reference to wheat*. State the comparative productiveness of different varieties of wheat—white and red.

3. What have been the ruling prices of different kinds of grain, hay, &c., since your section has been cultivated, what is the relative cost of the different crops, and which have been most profitable? State what crops are sold, or what proportion of certain crops, and in general terms how the remainder is disposed of.

4. What kinds of fruit are cultivated in your section, what their relative profits, and also the

profits of any kind, compared with other crops? State what have been the prices of apples and other fruits, and for what markets they have been sold.

5. Are root crops cultivated in your section? If so, state what kinds are preferred, and the purposes to which they are devoted. State, also, any facts which are established, bearing on the question of the expediency of root-culture in Michigan.

LIVE STOCK.

6. Beyond the number of horses, cattle and swine, deemed essential to farm management, what description of live stock has been most profitable?

7. What have been the prices of beef, pork, mutton, butter and cheese, at your principal market stations or towns?

8. Which of the three kinds of meat mentioned in the foregoing question, can be produced at least cost?

9. What is the average annual yield of butter per cow, and what of cheese?

10. What is the relative cost, per pound, of butter and cheese? State if cheese is made on the so-called "factory system," in your neighborhood, and with what results.

11. What breed of cattle is most profitable in your vicinity, for beef, what for the dairy, and if oxen are used for labor, what for that purpose? State what have been the results of the introduction of any distinct breeds, and whence they were obtained.

12. What breed or grade of horses is best adapted to farm work, and what to traveling with light vehicles? State what height and weight of horses are preferred for farm work, and the same for those for traveling. State, also, what have been the results of the introduction of different kinds of horses into your section.

13. What breeds of sheep are kept in your section, what has been the average weight of their fleeces, washed or unwashed, and what prices have they brought per pound? State if sheep are fattened for market, either as lamb or mutton, and what breeds are most profitable for these purposes. State what have been the results of the introduction of any distinct breeds or families, and whence they were obtained.

14. What breed of swine is most profitable? State at what age swine are usually slaughtered, and what their average dressed weight.

IMPLEMENTS.

15. What labor-saving implements or machines have been introduced into your section, and to what extent has manual labor been thus dispensed within other words, with how much less manual labor can a given amount of products be now ob-

tained, than before such implements or machines were used?

16. What kinds of reaping machines, and what kinds of mowing machines are used in your neighborhood? So far as a preference is given to one kind over another, state why.

17. Are corn-planters, grain drills, broadcast sowing machines (for grain, clover and grass-seed, or fertilizers—as ashes, plaster, &c.) used in your neighborhood, and with what results? State what kinds of these machines have been tried, and their relative merits, so far as ascertained.

18. What kinds of horse-rakes are used in your section, and what their respective advantages?

19. Are "horse-pitchforks" used in unloading hay, and if so, what is thought of them in reference to saving or lightening manual labor?

20. Are "hay-tedders" (machines to aid in drying hay) used in your neighborhood, and if so, what kinds, and with what results?

Describe any special improvement which has been made in ploughs, harrows, cultivators, or any other implement, and mention any new one that has been introduced.

MANURES.

21. To what extent are the solid and liquid excrements of domestic animals saved, and how saved, and applied to the land?

22. To what crops is stable or yard manure usually applied, and in what ratio does the application of a given quantity to the acre commonly increase the yield?

23. Are other manures used—as plaster, ashes, lime, super-phosphate of lime, bones, &c.—and at what cost, and with what results on different soils and crops?

MISCELLANEOUS.

24. What has been the advance, if any, in the value of forest or wood-land, within the last five years, and also the advance in the value of wood and lumber for the same period?

25. In clearing land, how are the different kinds of timber disposed of? State the prices received for the timber, or articles into which it is immediately wrought.

26. What wages are paid to farm laborers by the day and month, at different seasons of the year? State at what rates wages have ranged in former years.

27. Have any experiments been made in under-draining in your neighborhood, either with tiles, stones, or other materials? If so, state on what kinds of soils, the manner in which the work was done, the cost per rod, and the general results.

28. What agricultural improvements are most needed in your section? Make suggestions as to what can be done to advance the agricultural interest.

DETROIT LIVE STOCK MARKET.

In consequence of advices from Albany and Brighton, and the large stock on hand at those points on the 13th inst., the business is not so brisk as at our last report, and prices have declined from $\frac{1}{2}$ to 1 cent per pound in Detroit. The big prices of last month hurried everything in the shape of spare beef into market, and as must be expected it became overstocked, this, together with the holding back of the government agents east from purchasing has brought prices down somewhat, they are as follows:

	May.	June.
BEEVES.—First quality, very ex.	\$7 00a8 50	\$6 50a7 00
Ordinary	5 25a6 75	5 00a6 50
Common	4 00a5 00	3 00a4 50
Inferior	3 00a3 50	2 50a3 00

SHEEP.—Active at \$5 50a8 00 per cwt.

CALVES.—In demand at \$5 00a8 00 per head, as to quality.

HOGS.—In demand at \$8 00a9 50 per cwt.—few in market.

DETROIT MARKET PRICES,

Ending June, 16th, 1864.

Carefully corrected just before going to press, by

C. L. CROSBY & CO.

Commission Merchants and Dealers in Fruits, and Western Produce generally. No 169, Woodward Avenue, Detroit, Mich.

White Wheat	do	in limited offering, firm	\$1 65a1 70
Red Wheat	do	do	1 55a1 60
Corn, Shelled,	do	fluctuating, fair supply	1 21a1 24
do in the ear,	do	do	1 06a1 10
Oats,	do	declining, fair demand	0 73a0 76
Rye,	do	nothing doing	1 15a1 18
Barley, new	do	declining	2 75a2 80
Potatoes, Neeshannocks,	do	dull and heavy	0 80a0 85
do common	do	do	0 70a0 75
Apples, do bbl.	do	scarce and wanted	4 50a5 00
do dried	do	quiet and steady	2 40a2 50
Seed, clover	do	quiet and firm	7 50a8 00
do timothy	do	unchanged	3 00a3 25
Beans,	do	do	2 00a2 25
Onions,	do	no old crop in market	1 75a2 00
Turnips,	do	no sale	0 25a0 30
Cider, do bbl.	do	none in market	5 50a6 00
Butter, fresh roll,	do	declining	0 23a0 25
do firkin,	do	declining and dull	0 25a0 30
Eggs do doz.	do	in full supply & dull	0 16a0 17
Pork, best dressed,	do	advanced and firm	12 00a12 50
do do bbl.	do	do	30 00a31 00
Beef, best dressed	do	do	8 00a8 50
Mutton, dressed	do	unchanged	0 07a0 08
do live	do	do	0 05a0 06
Hides, green,	do	advanced	0 06a0 07
do dry,	do	do	0 16a0 17
do green calf	do	do	0 14a0 15
do dry do	do	do	0 28a0 31
Sheep Skins each	do	declined	1 65a1 75
Wool fine grade	do	do	0 65a0 75
Canada coarse clean fleece	do	do	0 55a0 60
Chickens dressed per pair	do	do	0 75a1 00
do live pair	do	do	0 50a0 75
Hay ton new and old	do	advanced	22 00a23 00
Cheese, do lb	do	new crop declining	0 17a0 19
Corn Meal, do cwt.	do	advanced	2 40a2 50
Coarse middlings	do	do	24 00a26 00
Salt, do bbl.	do	advanced and firm	2 10a2 25
Flour, do	do	advanced	7 00a8 50
Lard, do	do	advanced and firm	0 14a0 15
Maple Sugar, do	do	dull	0 17a0 18
do Syrup, do gal.	do	do	1 40a1 50

WOOD Unchanged.—Good Hickory, \$5.50 a \$6.00. Beech and Maple, \$4.25 a \$5.00; mixed Wood, Beech, Ash, &c., at \$4.00 a \$4.50. Green ranges from 25 to 50 cents lower than well-seasoned.

BUTTER.—Many of our butter makers are to careless of the manner in which they prepare and bring their butter to the market, a little more care should be taken in quality and order to ensure a good price. Farmers should put roll butter in clean wet cloths, the cloths could be used many times and save expense of new ones.

NEW YORK MARKET.

Compiled for the Farmer from the latest New York advices to the date of going to Press.

FLOUR—State and Western Flours were quiet and unchanged. Sales 8,000 bbls. at \$7 80 @ \$7 50 for super, \$7 65 @ \$7 80 for extra State, \$8 10 @ \$8 20 for round hoop Ohio, \$8 @ \$10 for medium to choice grades of Western extra trade and family brands, and \$7 75 @ \$8 90 for common do.

Southern Flour was in good demand for export, and firm sales at \$7 40 @ \$8 40 for super; \$7 50 @ \$9 50 for fancy and extra; and \$9 95 @ \$11 for choice shipping and family brands.

Canada Flour was firm at \$7 65 @ \$9 for common to choice extra.

Eye Flour is selling at \$6 75 @ \$8. Corn Meal dull at \$7 25 and \$7 75.—Prices have a strong tending upwards; Western Flour has advanced \$1 50 since May on medium and choice brands.

WHEAT—Is fast looking up, foreign news is favorable. Sales at \$1 68 @ \$1 70 1/2 for No. 2 Chicago; \$1 73 1/2 @ \$1 75 for No. 1 do.; \$1 70 1/2 for No. 2 Milwaukee; \$1 74 @ \$1 76 for No. 1 do.; including 87,000 bushels No. 1 Club, to arrive, \$1 72 @ \$1 78; also red Winter at \$1 75 @ \$1 80, and amber do., \$1 84 @ \$1 88. A large advance has been made above May quotations of from 8 to 14 cents per bushel and still going up.

CORN—Is inactive still, and dull. Sales at \$1 55 for Western mixed, new, with an increase of 2 1/2 cts since our last.

OATS—Large supply, at \$4 @ 95c for Western and State, 93c @ 94c for Canada. Rye quiet at \$1 60 @ \$1 65. Canada Peas are firmer. Sales 7,000 bushels at \$1 85. Oats show 2 @ 3c advance over May, but the tide will soon turn after haying.

FRUITS—Green Apples, such as Roxbury and Golden Russets, are selling at \$5 40 @ \$6 50 per barrel, advanced 50c per barrel. Strawberries, in boxes 15 @ 20c per quart.

BEANS—Are inactive, and prices are nearly nominal. We note sales of small lots of mediums at \$2 55 @ \$2 75 per bushel, and Marrowfat at \$2 85 @ \$2 90. Prime Kidneys are held at \$2 80 @ \$2 90, and Pea Beans are worth \$2 90 @ \$3 for strictly prime lots. Prices unchanged.

PORK—Dull, but higher. Sales 1,200 lbs. at \$32 12 1/2 @ \$32 23 for new mess, \$29 75 @ \$30 50 for old mess, \$25 50 for new Prime, and \$32 for Prime Mess. Also, 1,500 bbls. Prime Mess, buyer July, at \$32 50;—advance of \$1 80 @ \$2 00 on best qualities.

LARD—Was firm but quiet. Sales 600 bbls. and tes. at 14 1/2 @ 15 1/2 c for No. 1 prime. Also, for future delivery, 1,500 bbls. prime at 15 1/2 @ 16c; 2 @ 3c advanced since May.

BEEF—Was less active; prices steady. Sales at \$9 @ \$10 for country Prime; \$12 @ \$15 50 for country Mess; \$16 @ \$19 for repacked Western Mess; and \$20 @ \$23 for extra. Unchanged.

BUTTER—Dull at 23a11c for Ohio, and 33a37c for State, and 35a40c for selections, declined 2a2c.

CHEESE—Dull at 11a15c for Ohio, 14a17c for State, declined 2a2c.

REMARKS—Flour and Wheat have made a strong lift up. In prices. Corn and Oats show a disposition to decline as hay cures. Apples and Beans are a little changed. Pork and Beef are quiet and firm with a disposition to advance. Lard is firm and advanced. Butter and Cheese are going down as the grass comes up, which must be expected at this season. As a whole, the market is very favorable on staple crops, such as Wheat, Wool, &c.

NEW YORK CATTLE MARKET.

Tuesday morning, when the market opened at Forty-fourth street, the books showed that there were 8,567 head in the pens. A careful examination of the cattle on sale disclosed the fact that there were less than the usual supply of prime cattle, while of medium, common and poor cattle there was a larger number than could well be worked off at the prices relatives were demanding. The prime cattle were sold at a decline of only about 1/2 c per lb., while common to medium were but slowly worked off at prices nearly 2c. per lb. lower than they would have brought on the Monday previous. Seldom have

we reported so dull and dragging a market as that of Monday. Butchers either held aloof from the yard, or, if they handled the cattle, were exacting about weights, and slow in purchasing. The range of prices is very wide, some cattle selling at 12c. per lb., and others, but only a few, at 19 1/2 c; the average about 16c. At Chicago the supply was comparatively light, and the same prices as reported a week ago, viz. \$3 50 @ \$3 13 per cwt., live weight, ruled for good to prime cattle. At Albany the supply was large, and prices were 1/2 c. to 1c. lower per lb., live weight, than last week. Hence the large number coming through to New-York in first hands.

Sheep are dull. Supply moderate, but demand light. Sheared sold on Monday at 7a7 1/2 c. per lb., and the few woolled-sheep in market brought 11 1/2 @ 12 1/2 c. per lb.

There were 1,400 hogs in the market at Forty-fourth street on Monday, selling at 9 1/2 @ 9 3/4 c. per lb. alive.—World 14th inst.

PHILADELPHIA CATTLE MARKET.

The arrival and sales of Beef Cattle are rather larger this week, reaching about 1,300 head. The market is very dull, and prices have declined fully \$1 the 100 lbs. First quality Western and Pennsylvania Steers are selling at 18a13 1/2 c; second do. at 16a17c. and common at, from 13 to 15c per lb., as to quality. About 200 head sold to go to New York at 9a10 1/2 c. per lb., gross, and 150 head to go to Baltimore at 9 1/2 @ 9c per lb. gross. The market closed very dull within the above range of prices.

COWS—About 220 head sold at from \$25 up to \$75 per head as to quality.

SHEEP—Are dull and lower, with sale of 8,000 head at from 5 1/2 to 8c per lb. gross.

HOGS—About 3,600 head sold at the different yards at from \$10 to \$12 50 the 100 lbs. net.

CALVES—About 35 head sold at from 6 1/2 @ 8c per lb. as to weight and condition.—Press.

BRIGHTON, CAMBRIDGE AND MEDFORD CATTLE MARKETS.

The following is the amount of stock reported at market:

	Cattle.	Sheep.	Swine.	Hogs.	Veals.
This week.....	1053	2901	892	800	1000
Last week.....	975	3660	625	641	900
One year ago, (June 11) 1165	1656	1600	1200	900	

PRICES.

BEEVES—First qual... \$13.00 @ 14.00 Per 100 lbs. on the total
Second do..... 12.00 @ 13.75 weight of hide, tallow,
Third do..... 10.50 @ 11.75 and dress beef.
Extra and premium, \$14.00 @ 15.00.

WORKING OXEN—\$10 @ 27 1/2, or according to value as beef.
MILK COWS—\$5 @ 50; Extra, \$6 @ 84; Ordinary, \$3 @ 35.

VEAL CALVES—\$5 @ 9 per head.

SHEEP AND LAMBS—6a5 1/2 c per lb. on live weight, sheared.

HIDES, 10 1/2 @ 11c. **CALF SKINS**, 20a22c. **TALLOW**, 9 1/2 @ 10c.

PORK, 62c. **LAMBS**, \$1 25.

SWINE—Wholesale, 8a10c per lb.; retail, 10a11c. Spring pigs, 16a18c per lb. Columbia County stores 11a12c. Fat hogs higher, 9 1/2 c.

CATTLE AND SHEEP FROM SEVERAL STATES.

	Cattle.	Sheep.	Cattle.	Sheep.
Maine.....	17	14	Northern N. York.	16
New Hampshire.....	157	364	Western States.....	105
Vermont.....	263	382	Canada.....	26
Massachusetts.....	68	100	Total.....	1053

—N. E. Farmer.

Washenaw County Wool-Growers Festival.

At the wool-growers festival held at the house of D. G. Rose, Esq. of Sharon, on the 30th ult., sheep from the flocks of Messrs. Rose, Dean, Crafts and Quick, of Sharon; Spaulding, Crafts, Elliott, Cady, G. W. Watkins, J. L. Watkins, Keys and Van Houten, of Grass Lake; J. P. Smith and G. O. Smith, of Napoleon; Hall, of Brooklyn, and Van Gleason, of Lodi, were sheared, and the committee reported the following decisions, based upon the quality of wool and proportion of the weight of the fleece to the weight of the sheep before shearing:

	Wt of sheep.	Wt of fleece.
Best 6 year old buck, J. Van Gleason, Lodi	144	17 1/2
Best 4 " J. W. Elliott, Grass Lake	164	18 1/2
Best 3 " J. L. Watkins, do	114	17
2d best, D. G. Rose, Sharon	112	17 1/2

8d best,	J. P. Smith, Napoleon	82	15
Best yearling,	W. S. Crafts, Sharon	84	10½
Best 2 year old ewe,		78	18
8d best	Jas. Quick, Sharon	70	10½
Best yearling ewe,	D. G. Rose, Sharon	56	11
2d best,	W. B. Dean, Sharon	50	9½

The festival was composed of representatives from the towns of Sharon, Grass Lake, Manchester, Brooklyn, Napoleon, Sylvan and Lehi, making about two hundred. It was decided to form a wool grower's association, and on motion of John Robinson, Esq., the meeting adjourned to meet at the village of Norvell on Saturday, the 18th day of June next, at one o'clock P. M., for the purpose of perfecting this organization, and the transaction of other appropriate business.

Hints on Haying.

A correspondent of the *Boston Cultivator* says:

Securing hay in season and order is a very important part of farm labor. All farm-work should be taken by the forelook. Weeds, like other evils, should be nipped in the bud. Grass and other herbage should be gathered while in bloom, or before. The high price and probable want of grain for a year to come, shows the duty of making the most out of the hay crop, which now seems of good promise. Experience and observation have taught me the following facts: Owing to the scarcity of farm help, mowing-machines and all kindred implements should be used where practical. Other work should be so arranged that haying may be begun in good earnest by the 20th of June. "Instant in season," and it out of season, let it be in advance, cutting the ripest first.

The following reasons convince me of the advantages of early haying:—1. It is sweeter and better, containing more saccharine and nutritive matter; more milk and flesh-producing substance. Even daisies, weeds and swamp grass cut early make fair fodder. 2. Usually more in quantity as well as better in quality is obtained than when left to ripen and dry up by alternate rains and sunshine. 3. It exhausts the land less than when left to "run to seed," which more than else draws upon and impoverishes the soil. 4. One often gets a valuable crop of rowen or afterfeed, or which is unmown or unfed helps keep the land in good condition. 5. The weather is better generally in the early season; don't wait for sultry, cloudy, rainy Dog-days, and besides the second crop should have the benefit of the latter "rain upon the mown grass." 6. The days are longer in the early season by a fourth, and the dews less. 7. Finally, the haymakers are fresh, vigorous and ambitious the first of the season, while, after it has "dragged its slow length along," the workmen, wearied out, lose heart and spirit with a lagging of things generally, so that one day at the 20th of June is worth about two days at the 20th of August. Every kind of stock as well as sheep, in order to live and do well, should have early cut hay. Try it.

— Over \$60,000,000 of 10-40's have been taken.

U. S. 10-40 BONDS.

These Bonds are issued under the Act of Congress of March 8th, 1864, which provides that all Bonds issued under this Act SHALL BE REDEEMED IN COIN, at the pleasure of the Government, at any period of *not less than ten, nor more than forty years* from their date, and until their redemption FIVE PER CENT. INTEREST WILL BE PAID IN COIN, on Bonds of not over one hundred dollars annually, and on all other Bonds semi-annually. The interest is payable on the first days of March and September in each year.

As these Bonds, by an Act of Congress, are

Exempt from Municipal or State Taxation

their value is increased from one to three per cent. per annum, according to the rate of tax levies in various parts of the country.

At the present rate of premium on Gold they pay

OVER EIGHT PER CENT. INTEREST

in currency, and are of equal convenience as a permanent or temporary investment.

It is believed that no securities offer so great inducement to lenders, as the various descriptions of U. S. Bonds. In all other forms of indebted, the faith or ability of private parties or stock companies or separate communities only is pledged for payment, while for the debts of the United States the whole property of the country is holden to secure the payment of both principal and interest in coin.

These Bonds may be subscribed for in sums from \$50 up to any magnitude, on the same terms, and are thus made equally available to the smallest lender and the largest capitalist. They can be converted into money at any moment, and the holder will have the benefit of the interest.

The Fanded Debt of the United States on which interest is payable in Gold, on the 3d of March, 1864, was \$768,965,000.—The interest on this debt for the coming fiscal year, will be \$46,987,126, while the customs revenue in gold for the current fiscal year ending June 30th, 1864, has been so far at the rate of over \$100,000,000 per annum.

It will be seen that even the present gold revenues of the Government are largely in excess of the wants of the Treasury for the payment of gold interest, while the recent increase of the tariff will doubtless raise the annual receipts from customs on the same amount of importations, to \$ 50,000,000 per annum.

The authorized amount of this loan is Two Hundred Million Dollars. Instructions to the National Banks acting as Loan Agents were not issued until March 26th, but the amount of Bonds reported sold at the United States Treasury up to May 14th was

\$48,964,900.

Subscriptions will be received by the TREASURER OF THE UNITED STATES at Washington, and the ASSISTANT TREASURERS at New York, Boston and Philadelphia, and by the SECOND NATIONAL BANK OF DETROIT, Mich. FIRST NATIONAL BANK OF ANN ARBOR, Mich. FIRST NATIONAL BANK OF FENTON, Mich.

AND BY ALL NATIONAL BANKS

which are depositaries of Public money, and all

RESPECTABLE BANKS AND BANKERS.

throughout the country (acting as agents of the National Depository Banks,) will furnish further information on application and

AFFORD EVERY FACILITY TO SUBSCRIBERS.

BUY THE BEST!! THE PREMIUM THRESHING MACHINE



THE Railway Horse Power which has repeatedly taken the First Premium at N. Y. State Fair, and has never failed to do so OVER ALL ITS COMPETITORS, wherever exhibited by us in competition with others, running with low elevation and slow travel of team.

COMBINED THRESHERS & CLEANERS,
Threshers, Separators, Fanning Mills, Wood saws, &c.
All of the best in the market.

THE THRESHER AND CLEANER
Received the FIRST PREMIUM at the Ohio State Fair, 1868 runs easy, separates the grain clean from the straw, cleans quite equal to the best of Fanning Mills, leaving the grain fit for the mill or market.

For price and description send for Circulars, and satisfy yourself before purchasing.

R. & M. HARDER,
COBLESKILL, Schoharie County, N. Y.

SHEEP WASH TOBACCO!

WILL NOT INJURE the most delicate animal.

Kills TICKS on Sheep.

Cures SCAB on Sheep.

Kills VERMIN on Animals and Birds.

Cures all SKIN DISEASES on Animals.

Kills BUGS on Roses, LICE on House Plants.

Kills CANKER WORM on Apple Trees.

Kills BED-BUGS and WATER-ROACHES.

Kills all VERMIN that infest Grape and Cranberry vines.

One Pound of this Extract will make TEN Gallons of Wash.

For sale by all Druggists, and at Country and Agricultural Stores.

Price 75 cents per pound. A liberal discount to the trade and large purchasers.
Orders promptly sent by express.

JAMES F. LEVIN,

Agent South Down Co., 23 Central Wharf,
BOSTON, Mass.

R. H. ALLEN & CO'S Agricultural Warehouse,
139-191 Water Street, NEW YORK CITY.

DUDLEY & STAFFORD, Druggists,
69 Beekman Street, NEW YORK CITY.

W. H. PIERCE, 107 Bank street, CLEVELAND O. his

BLISS & SHARP, Druggists,
144 Lake Street, CHICAGO, Ill.

Wholesale Agents for MICHIGAN, Indiana and Illinois.

JAMES FORTON,

JUSTICE OF THE PEACE For the Town of BURTON,

Office with Dr. CORNELIUS—Post Office Box 180,
PLINT, - (Genesee County,) - Michigan.

Deeds and Mortgages made out and acknowledged. Marriages solemnized in the City or Country, General Agent, Accounts collected with dispatch, and all business pertaining to the office

Fruit and Ornamental Trees

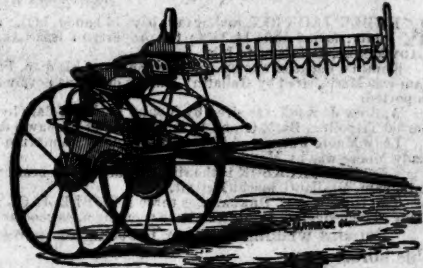
All kinds of Fruit Trees, Ornamental Trees,

Shrubbery, Roses, LARGE EVERGREENS, &c., &c.

CONCORD and DELAWARE GRAPES, &c.

For Sale by

HUBBARD & DAVIS, Detroit Nursery.
Detroit, April, 1864.



Quaker Mower and Reaper

UNRIVALLED IN EVERY RESPECT

TABERS & CO.,

MANUFACTURERS,

SALEM, - Columbiana co., - OHIO

Send for Illustrated Pamphlet.

mar8mp

ALLEN & TAFT, Agents, Plymouth, Mich.

VERBENAS!!

10,000 VERBENAS, containing all the BEST varieties in cultivation,

Price, - - - \$1.00 - - per dozen

do - - - \$6.00 - - per hundred

Plants will be sent by mail, by adding the Postage, which will be about 12 cents per dozen.

For sale by

HUBBARD & DAVIS, Detroit Nursery.
Detroit, April, 1864.

C. RAOUX,

86 CEDAR ST., - - - - NEW YORK CITY,
COMMISSION MERCHANT, AND

SOLE AGENT in the UNITED STATES,

For Messrs. JOHN STEWART & SONS, Nurserymen, Dundee, Scotland.

Mons. DE LAUVESSE Nurseryman, ORLEANS, France.

L. DE LANGE, Florist, HAARLEM, Holland.

Goods purchased and sold on Commission. Custom house and forwarding business attend to with economy and despatch.

REFERENCES.

EDWARD BOWE, Esq., Pres't Grocers Bank, N. Y. City.

Messrs. DODD & Co., Importers, New York City.

" ED. HART & Co. Merchants, " "

" FROST & Co., Genesee Valley Nurseries, Rochester New York.

GEORGE R. MUMMA, Esq., Dayton, Ohio.

Messrs. T. B. YALE & Co., Nurserymen, Rochester, N. Y.

S. B. MARSHALL, Esq., Prospect Hill Nur., Massillon, O.

J. E. ILGENFRIED, Nurseryman, Monroe, Michigan.

Messrs. HOOPER & Bro., Cherry Hill Nursery, Westchester Penn.

T. J. SHALLGROSS, Esq., Nurseryman, Locust Grove, Kent Co., Md.

mayly

Chester White Pigs!

THE SUBSCRIBER continues to breed and ship to order Pure bred Chester White Pigs. Address

SETH A. BUSHNELL,

HARTFORD, Trumbull Co

THE BEST MESSENGER AND BASHAW STALLION IN THE WEST

"KEMBLE JACKSON,"

Will stand for mares the present season at
At the *Spring Brook Farm*, adjoining the village of FARMINGTON, Oakland county, Michigan, on *Monday* and *Tuesday*.

At the National Hotel, BIRMINGHAM, on *Wednesday* and *Thursday*.

At the Bellevue, House, near the Association Park Course, DETROIT, on *Friday* and *Saturday* of each week during the season. Season to commence April 18th, and close July 30th, 1864.

TERMS \$24 FOR THE SEASON,

Money due when Mare is first served. All accidents at the owner's risk.

Pedigree of Kemble Jackson.

KEMBLE JACKSON, mahogany bay, 16 hands high; star 'n his forehead; hind feet white half way up to the gambrel joints; foaled June 14, 1854; the property of Isaac Akin, Paulding, DuChess county, N. Y.; *sire* KEMBLE JACKSON; *dam* LADY MOORE, half sister to Iola.

Kemble's Jackson was by Andrew Jackson; his dam, Fanny Kemble, sister to Charles Kemble, and sired by Sir Archy; her dam was Maria, sired by Gallatin; Maria's dam was got by Simin's Wildair, she out of a mare got by Morton's Traveler, her dam imported.

Andrew Jackson was sired by Young Bashaw; dam by Why-Not, by Imported Messenger; Young Bashaw was by the Imported Tripollitan Barb, Grand Bashaw; Young Bashaw's dam was a daughter of Messenger.

Lady Moore was out of Messenger Maid, by Membrino Pymaster; he by Old Membrino, by Imported Messenger; dam of Lady Moore was by Membrino.

KEMBLE JACKSON is the sire of some of the best colts in this part of the State. They can be seen at Farmington, Birmingham, Ypsilanti, and at Detroit.

The Hon. Wm. C. DUNCAN has three KEMBLE JACKSON COLTS, which can be seen at any time at his stable in Detroit. They are considered, by all who have seen them, as good as any colts of their age in this State.

Persons wishing to raise Trotting or good Road Stock, should not miss the opportunity of using this horse.

F. E. ELDER, Detroit.

THE CELEBRATED HIGH BRED HORSE

"WAYNE CHIEF,"

Will stand for the season of 1864, at the Farm of the subscriber, two miles south and two west of FARMINGTON VILLAGE, at

TEN DOLLARS FOR AN INSURANCE.

Season to commence to the 15th of April and close the 15th of July. Good pasturage furnished with running water, at fifty cents per week. All escapes and accidents at owner's risk.

PEDIGREE:

WAYNE CHIEF was bred by the subscriber. *Sire* IMPORTED STONE FLOVER: he by the renowned Cotherstone, winner of the Derby, out of Wrynneck, by Slane, the sire of Merry Monarch, winner of the Derby, and Princess winner of the Oaks; Cotherstone was by Touchstone, out of Emma, by Whisker, she being the celebrated dam of Imported Trustee. The dam of **WAYNE CHIEF** is DOLLY, a mare owned by the subscriber, and sired by Sir Archy Lightfoot; he by Sir Archy, out of Transport; he by the celebrated Sir Archie; and he by Imported Diomed, who was by Florizel. The dam of Dolly was Betty, sired by Young American Eclipse; he by Vivian Gray; he by the renowned Long Island Eclipse. Her dam was Nancy Eve, a mare noted for her pure blood and fine style.

DESCRIPTION:

WAYNE CHIEF is FIVE YEARS OLD, and of deep, rich cherry bay, with black mane, tail and legs, fully sixteen hands in height, and perfectly free from blemishes of any kind. He possesses immense bone and muscle, and is pronounced by the most competent judges to be one of the most perfect high bred horses in the State. He is thoroughly calculated to produce stock that will combine blood, bone, strength, symmetry and action. He obtained the Williams' Prize of \$50, which he offered for the best colt, the get of his horse in 1858; he has also drawn THREE FIRST PRIZES at the different STATE FAIRS, and the first in his class at the Oakland County Fair last fall. Circumstances prevented his having been shown at the last State Fair. He has a few colts, coming one year old, one of which drew a prize at the Oakland County Fair last fall. His action as a Trotter has rarely been equaled by any horse of his age and training.

A. D. POWER, Farmington, Mich.

"ERICSSON."

The Celebrated TROTTER STALLION ERICSSON, will stand for the use of mares
At **SMOLK'S LIVERY STABLE**, Railroad Hotel Barn, DETROIT, - - for the Year I
AT FIFTY DOLLARS THE SEASON, payable at the time of service.

ERICSSON is EIGHT YEARS OLD; sired by Clay's "Membrino," out of the trotting mare "Mrs. Cavale." He is a hogany bay, stands 16½ hands high, weighs 1300 lbs., and is believed to be unsurpassed for style and action by any trot stallion of equal size in the world.

ERICSSON was trained for the course at four years old. He beat "Kentucky Chief," and "Albion," at miles heats over Lexington Course, on the 27th of May, with only seven days training, in 2:32½. In a match with "Idol," for \$500, on the 6th of October, he won in three straight heats. Time, 2:40-2:42-2:38½. Over the Woodward Course, on the 26th of October, he for a purse of \$200, he beat "Kentucky Chief" at mile heats, best 3 in 5 to harness. Time, 2:39½, 2:34½, 2:30½, 2:32, losing on first heat. This is the fastest four-year-old time ever known in the annals of racing.

ERICSSON, since that time, has been confined to Breeding, where he has proved as successful in the stud as he had been distinguished upon the turf. His colts are light-stepping, fine-styled roadsters, strong enough for the Plough, with superior action and great staying powers. They promise, like their sire, to astonish the world with their speed and great powers of endurance. The question is no longer in doubt, that size, style and speed can be united in one and the same horse.

Those who wish to improve their stock of breeding—the Sportsman's trotting horse, the Farmer's weight-carrying roaster, or the Gentleman's carriage-horse—will do well to patronize this famous stallion.

I will give a \$100 PITCHER to the FASTEST TROTTER COLT OF ERICSSON GET the present season to be decided the Fall after they are three years old—in harness, over the Association Course, Hamtramck.
Detroit, May, 1864.

K. C. BARKER.

Mon-

f each

rambrel
; dam

by: her
her dam

the Im-

dam of

on, Ir-

Detroit,

using

t.

est of

d with

winner
of the
e. The
chy, on
as Bath
y Ever

a hand
by the
ce stood
l for the
and the
Fair,
Tropi

ch.

I

is a
tro

over
the
er, 18

ing on
beco
riority
of end

ing re

season

R.